MEDICAL

AND

PHILOSOPHICAL

COMMENTARIES.

By a SOCIETY in EDINBURGH.

> La Nature eſt juſte envers les Hommes : elle les recompenſe de leur peines ; elle les rend laborieux, parce qu'a de plus grands travaux elle attache de plus grandes recompenſes. MONTESQUIEU.

VOLUME FIRST.

PART II.

LONDON:
Printed for J. MURRAY, No. 32. Fleet-ſtreet;
KINCAID & CREECH, and W. DRUMMOND, *Edinburgh;*
and T. EWING, Capel-ſtreet, *Dublin.*

M,DCC,LXXIII.

MEDICAL COMMENTARIES.

SECT. I.

An Account of Books.

I.

Elements of the Practice of Phyſic, by John Gregory, M. D. *Profeſſor of the Practice of Phyſic in the Univerſity of Edinburgh.* 8vo, Edinburgh.

WE are informed, in an advertiſement prefixed to theſe elements, that the author propoſed to have comprehended in them, all thoſe diſeaſes of which he uſually treated in his lectures on the practice of phyſic. But, not having leiſure to finiſh the whole, he was obliged to ſtop at the end of thoſe diſeaſes commonly reckoned febrile.

The public had once reaſon to expect that they would ſoon have been favoured with the remaining part of this ſyllabus. But, from the ſudden and univerſally regretted death of the author, this expectation is now at an end. We ſhall therefore preſent our readers with the general principles here laid down reſpecting the cure of the different febrile diſeaſes.

After ſome obſervations on the arrangement of diſeaſes, our author ſets out with treating of febrile diſeaſes in general. He alledges they may be diſtinguiſhed into intermittent; continued; remittent; exanthematous; and phlegmaſiae, or thoſe attended with topical inflammation. According to Dr Gregory, the general cauſes of fevers are, Miaſmata; Contagion; Errors in diet; Violent emotions of the mind; Suppreſſion of uſual evacuations; Improper applications of heat and cold; A certain ſtate of the air; Stimuli from external applications or injuries; And internal ſtimuli from inflammation, ſuppuration, &c.

He alledges, that the ſymptoms of febrile diſeaſes are ſo different, that it is impoſſible to aſſign any proximate cauſe which will admit of application to practice.

What he points out as the moſt general indications in fevers are, to remove plethora; to diminiſh the increaſed impetus of the blood's motion; to abate heat; to obviate thirſt; to produce an equable determination of the blood and nervous power; to promote ſecretions when obſtructed; to prevent or obviate the conſequences of topical congeſtion; to ſupport the vis vitae, and ſtimulate the nervous ſyſtem when torpid; to obviate putreſcency; to remove occaſional cauſes; and to relieve particular ſymptoms.

Intermittent fevers, our author obſerves, have been cured by a variety of remedies of different and oppoſite natures. The paroxyſm, he alledges, may be prevented, by the application of ſuch things, before its approach, as excite a great commotion in the ſyſtem; by mild ſedatives, antiſpaſmodics, and diaphoretics; by remedies which produce no ſenſible effect, as bitters, aſtringents, and Peruvian bark. The prevention of paroxyſms depends on avoiding occaſional cauſes; and on bracing and invigorating the ſyſtem.

Our author's indications of cure in continued fevers are, to remove plethora; to diminiſh the increaſed action of the heart and arteries; to take off ſpaſm, and promote the natural ſecretions, eſpecially by the ſkin; and to prevent or remove topical congeſtion, particularly in the head.

The indications he lays down in the nervous fever are, to promote a gentle diaphoreſis; to keep the belly open; and to remove any diſorder of the ſtomach; to ſupport the vis vitae; to remove ſpaſmodic ſymptoms; and to take off increaſed determination to the head, or congeſtion in it.

He obſerves, that, in putrid fever, the indications of cure are different in different periods of the diſeaſe. His general indications are, to obviate the effects of plethora, and violent heat; to remove occaſional cauſes; to procure gentle evacuations of the primae viae, and promote perſpiration; to ſupport the vis vitae; to obviate putreſcency; and to palliate particular ſymptoms. The prophylaxis, he alledges, conſiſts in avoiding miaſmata, contagion, foul air, and dirtineſs; in avoiding whatever weakens the ſyſtem, and depreſſes the nervous power; and in the uſe of antiſeptics.

The indications laid down in remittent fevers are, to promote an intermiſſion; to ſtop the return of paroxyſms; to obviate inflammatory or putrid diatheſis; to avoid and remove remote cauſes; and to palliate the violence of particular ſymptoms.

The cure of hectic fever, he obſerves, depends upon the removal of the primary diſeaſe.

In ſmall-pox, according to our author, the view of the phyſician ſhould be, to render them as mild as poſſible, by moderating the ſymptoms in the ſucceſſive ſtages of the diſeaſe. And, on the acceſſion of the ſecondary fever, the indications are, to mitigate the febrile ſymptoms, and to take off the determination to the head, throat, and breaſt.

The indications which he propoſes in the meaſles, are, to moderate and aſſiſt the efforts of nature in the eruption; to obviate the catarrhal and peripneumonic ſymptoms; to remove the diſorders conſequent on the diſeaſe; and to obviate the ſymptoms of putrid or nervous fever when complicated with it.

With regard to the cure of the miliary fever, he alledges, it is impoſſible to ſay any thing poſitive, as theſe eruptions are ſymptoms of fevers of very oppoſite kinds, and requiring oppoſite management; and as they are ſo generally the mere effects of hot regimen, and profuſe ſweats.

Our author conſiders the eryſipelatous fever as a diſeaſe which, for the moſt part, runs its courſe without any danger. But, when it attacks the face, he adviſes repeated, general, and topical bleeding, with cooling laxatives, and thoſe medicines, in general, which tend to take off determination to the head. When, however, the eruption ſeems critical, all evacuations are, he thinks, improper.

The plague, Dr Gregory alledges, is a nervous fever, highly contagious. This contagion is ſpecific. The cure, he tells us, has been attempted without any regard to nature's plan, by large bleedings in the beginning, by exciting a profuſe ſweat, and ſupporting it for a long time. The prevention depends on avoiding communication with infected people; deſtroying or diſſipating the contagious matter adhering to bodies; and rendering the body unſuſceptible of the contagion.

The indications which he lays down for the reſolution of inflammation are, to obviate remote cauſes; to remove general inflammatory fever; to remove topical affection, increaſed action of the veſſels, topical congeſtion, and ſpaſm.

When inflammation terminates in ſuppuration, he propoſes that a diſcharge of laudable pus ſhould be promoted, by external applications of various kinds, ſuited to the nature of the part; by internal remedies, and ſuch regimen as tends to remove any general indiſpoſition in the habit, which prevented the generation of good pus.

In gangrene, the author's indications of cure are, to remove occaſional cauſes ; to prevent the morbid matter from affecting the ſyſtem ; and to promote ſuppuration.

The indications of cure which were formerly laid down in inflammatory fever are, he alledges, applicable to phrenitis. But he obſerves, that it is farther neceſſary to take off the attention from whatever is diſagreeable ; to introduce new and pleaſing ideas ; and to ſoothe the mind by every poſſible art.

Our author is of opinion, that ophthalmia is merely a topical affection, but attended with great tenſion and pain ; and that the cure depends upon topical bleeding, cathartics, avoiding irritation, bliſters and iſſues, emollient applications, anodynes, keeping up a free perſpiration, and obviating remote cauſes. But, when the inflammation ſeems chiefly to proceed from relaxation, tonics, cold bathing, gently ſtimulating and aſtringent applications, and errhines, are to be employed.

In the inflammatory angina, the indications of cure which he lays down are, to obviate remote cauſes, to promote reſolution, to promote a favourable termination by ſuppuration, to ſupply the want of food and diluting liquids, and to prevent ſtrangulation. But in gangrenous angina, the indications of cure are the ſame as in putrid fever. The principal remedies he adviſes are, Peruvian bark, wine, antiſeptics, injections into the throat, and ſteams of vinegar and myrrh directed into the fauces.

His indications in the catarrhal fever are, to take off inflammatory diatheſis, and topical inflammation; to promote ſecretion from the mucous membrane; to correct the acrimony of the diſcharged fluid; and to reſtore perſpiration, and the determination of blood to the ſurface.

The indications he lays down in hooping cough are, to moderate the ſymptoms and prevent immediate danger in the paroxyſm; and to ſhorten the duration of the diſeaſe.

He conſiders pleuriſy and peripneumony together, as they are in general combined, as they proceed from the ſame cauſes, and as the method of cure in both is the ſame. He alledges, that the ſame indications are to be followed here as in inflammatory fever; and farther propoſes, to take off determination to the lungs, to promote critical evacuation or metaſtaſis; but particularly to promote expectoration, and to relieve particular ſymptoms.

In phthiſis pulmonalis, the indications of cure which he propoſes are, to remove inflammatory diatheſis; to take off determination to the lungs; and to mitigate the ſeverity of particular ſymptoms.

In hepatitis, he propoſes the ſame general plan of cure as in pleuriſy.

He obſerves, that the ſame general indications of cure take place in gaſtritis, as in other inflammations. But, if it has ariſen from acrid ingeſta, or acrid contents of the ſtomach, the indications are, to expel them by emetics or laxatives, and to correct the poiſon by ſpecific antidotes.

Beſides the cure pointed out for inflammatory fever, he propoſes, in enteritis, to obviate remote cauſes, eſpecially coſtiveneſs; and to palliate particular ſymptoms.

The general indications of cure, in nephritis, are the ſame as in other phlegmaſiae.

His indications, in acute rheumatiſm, are, to remove the general inflammatory fever; and to relieve the topical affection. In chronic rheumatiſm, beſides relieving the topical affection, he propoſes to promote diaphoreſis by medicines that may ſtimulate more than would be proper in acute rheumatiſm.

The laſt diſeaſe which our author conſiders, is gout. In the cure of this, two caſes, he obſerves, are to be carefully diſtinguiſhed. The *firſt*, where the conſtitution is ſound, the fits regular, and an inflammatory diatheſis preſent. The *ſecond*, where the conſtitution is debilitated, the fits irregular, and alternating with affections of the ſyſtem. In the *firſt* of theſe caſes, he propoſes, that, during the intervals, care ſhould be taken to avoid all occaſional cauſes; and that, during the paroxyſm, we ſhould endeavour to mitigate the pain, without repelling the gout. This he adviſes to be done by general and topical bleeding; by laxatives and diaphoretics that do not heat or ſtimulate; by light diet and cool regimen; by external anodyne applications; and by the cautious uſe of anodynes internally, in the decline of the paroxyſm.

In the *ſecond* caſe, he propoſes, in the intervals of the fits, to ſupport the vis vitae; to promote an equal diſtribution of the blood, eſpecially to the extremities; to keep up free perſpiration; to obviate debility, indigeſtion, and acidity in the ſtomach; and to avoid all ſudden changes of regimen. During the paroxyſm, he adviſes us, to uſe a cordial regimen; to give particular attention to the ſtate of the ſtomach and bowels; and to employ ſuch external applications as tend to invite the gout to the extremities, and to detain it there.

II.

Caſes in Surgery, particularly of Cancers and Diſorders of the Head from external Violence; with Obſervations. To which is added an account of the Sibbens, by James Hill *Surgeon in Dumfries.* 8vo, Edinburgh.

THE treatiſe now before us is divided into two chapters; in the firſt of theſe, Mr Hill treats of cancers. Surgeons in general have been deterred from having recourſe to extirpation in ſchirrous and cancerous caſes, from an opinion that theſe diſeaſes could not, in that way, be ſo effectually removed as to prevent their return. Mr Hill has the ſatisfaction of aſſuring his readers, that this opinion is, by no means, well founded; having, in the courſe of thirty years practice, extirpated no leſs than eighty eight genuine cancers, all of which, four excepted, were ulcerated. Of theſe patients, two only did not recover from the operation.

In April 1764, Mr Hill made a ſurvey of the caſes which had been under his care previous to that date. He found that, before that time, he had cut and cured ſixty-three, of whom there were then living thirty-nine. In twenty-eight of theſe, the operation had been performed more than two years before; the remaining eleven had been cut during the courſe of the two preceeding years. From this ſurvey, our author concludes, that a great majority of his patients lived as long after the extirpation of the cancers, as, according to the bills of mortality, they would have done, had they never been affected with cancer or undergone any operation. Since the date of this ſurvey, Mr Hill has cut twenty-five other patients, twenty-two of which are ſtill alive.

Our author acknowledges, that, beſides two caſes which did not heal after the operation, ſome others alſo miſgave. In nine caſes, the diſeaſe broke out a-freſh, either in the part before affected, or in ſome other part of the body. And, another at the time when Mr Hill finiſhed this treatiſe, which was in July 1770, was threatened with a relapſe.

After this general view of the ſucceſs with which extirpation was attended, our author next ſubjoins ſhort hiſtories of a few remarkable caſes, ſome of which ſucceeded, others did not ſucceed.

In the courſe of theſe, he takes occaſion to mention the good effects of ſutures, after extirpating cancers of the lips. From drawing the retracted edges of the wound together, and retaining them by means of the twiſted ſuture, they were made to unite much ſooner than they would otherwiſe have done.

After theſe obſervations on cancers, Mr Hill next preſents us with ſome remarks on encyſted tumours. Encyſted tumours he divides into five ſpecies, Atheroma, Steatoma, Meliceris, Struma, and Hydatides. All theſe, he obſerves, are ſo diſtinct and unconnected, that he never ſaw any one of them degenerate into another ſpecies, nor has he ſeen any of them end in cancer. He obſerves, however, that the ſarcoma, which may perhaps be reckoned a ſixth ſpecies of encyſted tumour, is not of ſuch a mild nature, and very frequently does turn cancerous.

The number of cancerous caſes which Mr Hill had under his care, naturally led him to make frequent trials of hemlock. But, after having often uſed it, and that too in conſiderable quantities, he alledges, that he never ſaw it attended with the ſmalleſt advantage. He aſſerts, that, were it his misfortune to have a cancer, even of the ſlighteſt kind, he would not delay the operation, even a ſingle hour, in expectation of a cure from the uſe of hemlock.

The next ſubject, of which Mr Hill treats, is the cure of Wens. By this term he means thoſe encyſted tumours only which are denominated Steatoms. When it can be done, he adviſes, that the tumor ſhould be turned out entire, by raiſing the four corners of a crucial inciſion, without opening the cyſt. When this cannot be done, they may frequently, he alledges, be digeſted out by running a ſeton through them in the direction of the length of the tumor.

As this treatiſe was not put to the preſs for two years after Mr Hill had written it, he ſubjoins, as an appendix to this chapter, ſome remarks which had occurred to him during that interval. In this appendix, we are informed, that he has cut ſeven other patients, all of whom continue to do well. From this ſucceſs, our author concludes, that by far the greateſt part of cancers muſt be local, and occaſioned merely by ſome accidental hurt. Hence, he thinks, that, by removing the diſeaſed parts, the conſtitution will be left ſound ; unleſs when by long delay the blood comes to be affected, from the ichor of cancerous ulcers being abſorbed. From this, he concludes, that no cancer ſhould be allowed to continue till it be ulcerated. This appendix is cloſed with a remarkable hiſtory of a fatal ſuppreſſion of urine, from a large hydatide tumour. It was ſituated between the neck of the bladder and the rectum, and compreſſed the neck of the bladder ſo ſtrongly againſt the os pubis, that a catheter could not poſſibly be introduced, even after death.

In the ſecond chapter, Mr Hill treats of diſorders of the head from external violence. He here preſents us with a particular detail of the caſes of many patients, ſome of whom were ſaved by the employment of the trepan, others without it. From theſe caſes he deduces many obſervations. He alledges, that protruſions of the brain, which, after the operation of the trepan, often prove very troubleſome, are neither to be cured nor prevented by compreſſion with lead plates, as has been adviſed by Le Dran and others. He recommends the exciſion of every part of the brain which protrudes in that way; and affirms that he has done it in ſo many caſes, and in ſuch conſiderable quantities, that he is certain it can never be attended with the ſmalleſt danger or inconvenience. It will, he alledges, be renewed in the ſame manner, as loſs of ſubſtance in any other part of the body.

In ſearching for fiſſures, after wounds or blows on the head, our author adviſes, that the integuments ſhould be ſpared as much as poſſible. For the purpoſe of detecting theſe, therefore, he recommends a ſingle, or, if that ſhould fail, a crucial inciſion.

In caſes of depreſſions of the ſkull, without fracture, our author diſſuades us from having recourſe to many of thoſe contrivances which are employed to raiſe the bone; ſuch, for example, as adheſive plaiſter, cupping, the ſcrew, and different kinds of levators. According to our author, the general effect of theſe contrivances is, to raiſe the integuments without affecting the bone. When ſuch depreſſions are attended with bad conſequences, bleeding, and other evacuations, will, in general, remove them. But, if thoſe means ſhould fail, he adviſes, that the trepan be applied upon the ſound bone near to the depreſſion, in order to afford an outlet for any blood or matter that may be extravaſated below. This, however, he alledges, will ſeldom be neceſſary. As a confirmation of the doctrine which is here delivered, Mr Hill relates ſeveral caſes of depreſſion which turned out well, although little was done. He relates, alſo, others, in which the integuments were laid open, and conſiderable exfoliations took place, rendering the cure much more tedious than probably would otherwiſe have been the caſe.

From much experience, our author is convinced, that opening the meninges of the brain, after the operation of the trepan, is attended with no danger. He recommends it as the moſt effectual way of relieving the patient, either when matter is ſuſpected to be lodged between the dura mater and brain, or when this membrane itſelf is inflamed.

In the cloſe of this chapter Mr Hill cautions us againſt healing up wounds of the head ſuddenly, by drying eſcharotic applications. The many headachs, vertigos, and other complaints, which ſometimes continue for life, after trepaning, are, he imagines, entirely owing to the diſcharge from the wound being ſoon dried up. He adviſes, therefore, that this ſhould be guarded againſt as much as poſſible.

After finiſhing this chapter on wounds of the head, Mr Hill concludes this treatiſe with a ſhort account of that diſtemper, which in Scotland is termed the Sibbens. This diſeaſe has been ſuppoſed to be very different from the Lues Venerea. Our author, however, alledges, that they are perfectly the ſame. The Sibbens, he tells us, was brought into that part of the country where he practiſes, not above fifty years ago, by ſome pocky ſoldiers, who, to prevent their debauching in town, were diſperſed through the neighbouring villages. He alledges, that there is not a ſymptom in the Sibbens which does not alſo accompany the Lues Venerea through all Europe; that the former is not more infectious than the latter; and that it cannot, as has often been alledged, be communicated from being in the ſame family or company, unleſs there be, at the ſame time, a nearer connection with the infected. With regard to the cure of this diſeaſe, he obſerves, that mercury, when properly exhibited, is a certain remedy; and that it is at the ſame time the only remedy which can be depended on. He tells us, that, by throwing in a mild preparation of it, he has cured numbers, without confining them to the houſe, even in froſty or ſnowy weather. He had formerly written a more full detail of the method of cure than is here delivered.

But he concludes with obſerving, that the directions given by Dr Gilchriſt, in a ſhort tract lately publiſhed upon this ſubject, entitled, "An Account of a very infectious Diſtemper," render any addition unneceſſary, as Dr Gilchriſt and he agree in every material circumſtance.

III.

A Treatiſe on the Management of Pregnant and Lying-in Women, and the Means of curing, but more eſpecially of preventing the principal Diſorders to which they are liable. Together with ſome new Directions concerning the Delivery of the Child and Placenta in natural Births. Illuſtrated with Caſes; by Charles White, F. R. S. *Member of the Corporation of Surgeons in London; and Surgeon to the Mancheſter Infirmary.* 8vo, London.

THE ſubject of this treatiſe is ſo fully expreſſed in the title-page, as to render any general account of the author's deſign altogether unneceſſary. We proceed, therefore, to preſent the reader with a ſummary view of the particular parts of Mr White's work, in the order in which they are conſidered in this treatiſe.

The puerperal or child-bed fever, is the firſt ſubject of which our author treats. This fever, he thinks, is of the putrid kind. In ſupport of his opinion, he endeavours to ſhew, that the remote cauſes of this diſorder are ſuch as will naturally induce putridity; and that the diſeaſe itſelf,

when

when actually preſent, is always attended with ſymptoms which bear evident marks of putreſcency. He points out many groſs improprieties in the management of pregnant and lying-in women, which he conſiders as the great ſources of thoſe diſorders to which women in child-bed are peculiarly liable.

Pregnancy is frequently attended with coſtiveneſs, occaſioned by the preſſure of the uterus on the under part of the inteſtines. But, inſtead of taking proper meaſures to remedy this inconvenience, the evil is, for the moſt part, encreaſed, by a tight heavy dreſs, a ſedentary liſe, and improper diet. Thus, there muſt neceſſarily take place an abſorption of excrementitious matter, which will diffuſe a putrid tendency through the ſyſtem. In the time of labour, the air of the chamber, frequently over-heated by a large fire, and corrupted by the breaths of numerous attendants, joined to the putrid ſteams ariſing from the woman's own body conſtantly bathed in ſweat, ſtill farther encreaſes the diſpoſition to putridity. After delivery, continues our author, women are often pent up for days together, in a putrid atmoſphere; are neceſſitated to drink large quantities of warm relaxing liquors; and are confined to a horizontal poſture, which is highly unfavourable for promoting the natural diſcharges by the inteſtines and uterus. Mean while, by neglecting to draw their breaſts till ſeveral days after delivery, the firſt milk, which is purgative and ſtimulating, is taken up by the abſorbents, and carried back into the ſyſtem. This treatment, he obſerves, cannot fail, either to generate a tendency to putreſcency, or to promote that which former errors had already induced.

Having made theſe obſervations on the cauſes, he obſerves, with regard to the ſymptoms of this diſeaſe, that it is frequently uſhered in by a cold fit, which, by the force of ſpirituous liquors, and hot ſpices, is ſoon ſucceeded by intenſe heat, and profuſe putrid ſweats. Theſe are often kept up by the ſame means firſt employed to excite them, for nights and days together, without any relief to the patient. At other times, the diſeaſe creeps on gradually, without any cold fit, and manifeſts itſelf by putrid ſweats, nauſea, bilious vomitings, frequent foetid dejections, unexpreſſible anxiety, laſſitude, debility, miliary eruptions, petechiae, and a train of other ſymptoms, which clearly ſhew a prevailing putrid diatheſis.

Our author obſerves, that, upon diſſection, the inteſtines, or ſome other of the abdominal viſcera, have, in general, been found in an inflamed or gangrened ſtate. He alledges, that, although theſe appearances would ſeem to favour the opinion of thoſe who aſcribe the puerperal fever to ſimple inflammation; yet the abſence of the excruciating pains, uſually attending inflammations of the bowels, is a circumſtance which renders this opinion leſs probable, than that which he endeavours to eſtabliſh.

This chapter is concluded with ſome remarks on the different deſcriptions which have been given of the puerperal fever by medical writers. Their diſagreement, Mr White is inclined to aſcribe more to accidental differences in the management of the diſorder, than to any eſſential variety in the nature of the diſeaſe.

In the ſecond chapter, the author treats of the miliary fever, a ſubject which, of late, has particularly engaged the attention of the medical world, by the warm diſputes of which it has been productive among ſome of the moſt eminent of the faculty. No accurate deſcription was given of this diſeaſe previous to its appearance at Leipſic, about the middle of the laſt century. But, from a variety of paſſages in antient authors, Mr White thinks it highly probable, if not abſolutely certain, that it has occurred to practitioners from the days of Hippocrates downwards. Since the time of Dr Sydenham, who firſt accurately deſcribed it in England, it has been particularly treated of by many medical writers. Theſe writers have differed widely, both concerning the pathology and cure of this diſorder. Some conſider the eruption to be the regular criſis of a primary idiopathic diſeaſe. While others have looked upon it merely as an accidental ſymptom, occurring indiſcriminately in all diſeaſes attended with ſweating, and at all periods of thoſe diſeaſes. Notwithſtanding theſe differences, however, Mr White obſerves, that moſt writers on the miliary fever, agree in the following particulars concerning it: That puerperal women are peculiarly liable to it: That it is of a putrid tendency: That the eruption is promoted by ſweating in bed; and is moſt plentiful on thoſe parts of the body which have ſweated moſt: That, whatever the eruption may be, the ſweats attending it are by no means critical: That, in one caſe, there will occur more than one crop of miliary puſtules: That miliary eruptions will ſometimes accompany inflammatory fevers; and that the danger with which they are attended is in proportion to their quantity and early appearance.

The general conſent of authors, with regard to theſe particulars, the direct authority of Allonius, a phyſician of eminence at Turin, and the great ſimilarity between the ſymptoms of miliary and putrid fevers, induce our author to conſider them as having a near affinity to each other. The eruption, he alledges, is the only diſtinctive mark between the two. This, however, he apprehends to be totally unconnected with the fever, as he has often ſeen miliary eruptions, both of the red and white kind, without any fever; and, on the other hand, all the ſymptoms of miliary fever, without any eruption. He farther obſerves, that, in many caſes, this eruption depends ſolely on a hot regimen, or the long continuance of ſweating.

Upon the whole, he concludes, that miliary eruptions are univerſally preceded by ſweating; that they are by no means critical; that no prejudice will ariſe to a patient from their being checked by cool regimen in the beginning of the diſeaſe; that puerperal women are peculiarly liable to them from their diſpoſition to putreſcency, joined to the relaxed ſtate of their ſkin, which is induced by long continued ſweating; and, laſtly, that the miliary eruption is produced by the cuticular diſcharge being increaſed in quantity, rendered acrid, and acquiring a putrid ſtate.

Mr White concludes this chapter, with obſerving, that his opinion of the miliary fever is perfectly conformable to that of Dr Cullen, an authority, deſervedly, of great weight in medicine. To prove this ſimilarity in their opinions, Mr White ſubjoins part of a lecture on the miliary fever, given by Dr Cullen, and taken from the notes of one of his pupils.

Another diſorder to which lying in women are expoſed, is the milk fever. This is the ſubject of the third chapter. This diſeaſe, we are told, depends upon the re-abſorption of milk, which by ſtagnating has contracted a peculiar acrimony. This ſtagnation is ſometimes owing to negligence, ſometimes to the ſtate of the nipples, which, by the conſtant preſſure of the tight ſtays, are often preternaturally flattened, and ſo buried in the breaſts, as to render the drawing of them impracticable,

ticable. The author obſerves, that the lower claſs of women, whoſe neceſſary labours do not admit of that tightneſs in dreſs, which is ſo common among their ſuperiors, ſeldom ſuffer any ſuch inconvenience. He thinks it, therefore, of the utmoſt conſequence for the female ſex to be cautious in this part of their dreſs. His obſervations on this diſeaſe are concluded with an anatomical deſcription of the ſtructure of the mammae, from which he deduces an explanation of the ſeveral phaenomena of ſuction.

The fourth chapter contains general directions for preventing ſome diſorders peculiarly incident to pregnancy. He inſiſts particularly on the impropriety of bleeding pregnant women, when no urgent ſymptom indicates that evacuation. He affirms, that, even in plethoric caſes, in which bleeding is generally thought neceſſary, much more benefit may be had from the uſe of aſſes milk, Pyrmont and Seltzer waters, elixir of vitriol, and gentle exerciſe on horſeback. Keeping the belly open, he points out as an object of conſiderable importance. For this purpoſe, he recommends the liberal uſe of ripe fruit and vegetables; and, if medicine be neceſſary, he adviſes, that recourſe ſhould be had to ſmall doſes of aloetic, and other bitter antiſceptic purgatives. To cleanſe the ſtomach, when foul, gentle emetics, he tells us, may be uſed with ſafety and advantage. For the temporary jaundice, to which pregnant women are liable, he adviſes the uſe of raw eggs. In confirmation of this practice, he tells us, that, by means of raw eggs, he was himſelf cured of an obſtinate jaundice, ſome years ago; that he has ſince recommended them to many others; and that they have always ſucceeded, unleſs where the jaundice depended, either on a diſeaſed liver, or on biliary concretions. Inſtead of tight ſtays, which ſome pregnant women very injudiciouſly wear, he adviſes the uſe of ſlack jumps with broad ſhoulder-ſtraps; and, inſtead of tying the petticoats round the belly, he directs them to be faſtened to tapes ſewed to the bottom of the jumps. But, if the belly be remarkably pendulous, he adviſes the uſe of a broad bandage, to counterbalance the preſſure on the bladder. Laſtly, he adviſes women in the latter months of pregnancy, to be frequently in a recumbent poſture, with a view of preventing the pains of the belly, back, and thighs, and ſwelling of the legs, which are ſo common at that period.

The fifth chapter contains directions, reſpecting the management of natural labours. The author's thor's general view in theſe directions is to induce practitioners to pay the moſt religious attention to nature in their whole conduct, and never to have recourſe to art, unleſs where it is neceſſary to regulate or aſſiſt the efforts of nature. He condemns the vulgar practice of tying the umbilical chord immediately upon the birth of the child. By delaying it for a few minutes, ſays he, the changes in the circulatory ſyſtem will take place gradually; and the circulation in the chord will ceaſe of itſelf. By this time too the ſecundines are generally expelled, or, at leaſt, may be eaſily extracted, by gently pulling the navel-ſtring, when a pain comes on. He prefers bringing away the placenta in this manner, to the practice of leaving it to come away of itſelf, as he imagines, that, by allowing it to remain, it is apt to occaſion violent afterpains, dangerous floodings, or putrid diſeaſes.

The prevention of the miliary and milk fevers is the ſubject of the next chapter; many directions are here given concerning the management of women after delivery. But the following particulars are inculcated by our author as the moſt eſſential: Cool regimen, the conſtant admiſſion of freſh air, a light diet, conſiſting more of vegetable than of animal food, the free uſe of cold drink, particularly of liquors acidulated or mixed with antiſeptic matters, great cleanlineſs, an upright poſture ſoon after delivery, keeping the belly open, the early application of the infant to the breaſt if the mother be to ſuckle, or, if not, the having the breaſts regularly drawn. By ſtrict attention to theſe particulars, Mr White aſſures us, that his own practice has been attended with remarkable ſucceſs. The frequent deaths of lying-in women, in ſome of the London hoſpitals, and in ſome parts of the country, he imputes to the corruption of the air in crowded wards, and to errors in the diet and dreſs of the women, from the miſmanagement of nurſes. In order to prevent the inconveniences ariſing from the heat, moiſture, and ſtagnation of the air in lying-in hoſpitals, he propoſes ventilation by means of air-pipes. He recommends alſo the method propoſed by Dr Alexander for correcting vitiated air, by fermenting antiſeptic mixtures; and tells us that, in putrid caſes, he has often uſed it with great advantage.

In the ſeventh chapter, the author delivers the cure of the puerperal fever. His cure is perfectly conformable to his theory. He directs, that the ſame general principles ſhould be followed in this as in other putrid diſeaſes. After cautioning, therefore, againſt the abuſe of hot regimen and ſtimulating medicines, with a view to ſhorten the cold fit, at the almoſt certain riſk of adding to the violence of the ſubſequent hot one, he recommends cleanſing the primae viae by gentle emetics, and by mild, ſaline, antiſeptic laxatives, aſſiſted by emollient injections. He recommends alſo ſaline draughts, in the act of effervеſcence, with a view to allay feveriſhneſs. Bleeding, and, in general, large evacuations, are to be avoided. The ſame attention is neceſſary for ſupporting the vis vitae in this as in other putrid fevers; cool freſh air, and general cleanlineſs, he likewiſe adviſes, as equally indiſpenſable.

The cure of the miliary fever, which is the ſubject of the following ſection, differs in nothing eſſential from that of the puerperal. Evacuants, in general, he condemns here, gentle emetics and laxatives alone being admiſſible. Even bliſters, he tells us, except as ſtimulants in the laſt ſtages of the diſeaſe, are hurtful. He is of opinion, that pure, free, cold air, cautiouſly admitted, the prudent uſe of cold acidulated drink, a frequent upright poſture, and the greateſt cleanlineſs, are the particulars chiefly to be depended on in the cure.

To theſe general doctrines, our author ſubjoins fifteen caſes, with a view of illuſtrating what he had before delivered, reſpecting puerperal and miliary fevers. From theſe caſes alſo, our author thinks it appears, that fatal floodings and other bad effects, will often ariſe from the retention of the placenta; from which he infers the neceſſity of removing it ſoon after the delivery of the child.

This treatiſe is concluded with a poſtſcript, containing ſome remarks on a treatiſe on the puerperal fever, lately publiſhed by Dr Hulme, which did not fall into our author's hands till his book was finiſhed. From ſeveral diſſections, Dr Hulme had concluded, that the puerperal fever depends upon an inflammation of the inteſtines and omentum. Mr White, in order to ſhew the fallaciouſneſs of this opinion, endeavours to prove, by quotations from Cleghorn, Sir John Pringle, Lind, and other eminent authors, that the very ſame appearances are almoſt conſtantly obſerved in all fatal putrid fevers. He is of opinion, therefore, that, in many caſes, they may be more properly conſiderd as the conſequences than as the cauſes of the diſeaſe.

Dr Hulme aſſigns the preſſure of the gravid uterus againſt the inteſtines and omentum, as the principal prediſponent cauſe of this diſeaſe. To this opinion our author objects, that, were it true, the puerperal fever ſhould happen rather before than after delivery.

Dr Hulme had farther urged, in favour of his opinion, that from it we can ſee the reaſon why all women have been, and ever will be, liable to this diſeaſe. To this, Mr White replies, that the diſeaſe by no means takes place ſo frequently as Dr Hulme imagines, nor, indeed, as it certainly would do, did it depend upon the cauſes which the Doctor aſſigns. The proof of this fact Mr White reſts, not only on his own obſervation, but upon the concurring teſtimony of perſons of great note in the practice of midwifery; to many of whom, he aſſures us, this diſeaſe is, in a great meaſure, totally unknown. As farther evidence, he adduces extracts from regiſters kept in various lying-in hoſpitals, from which he thinks it appears, that this diſorder is more or leſs frequent in proportion as ventilation and cool regimen are more or leſs ſtrictly attended to. He concludes the whole, by mentioning, from Dr Young, ſome particulars, reſpecting the management of the lying-in ward in the royal infirmary at Edinburgh. To theſe he aſcribes the remarkable ſucceſs attending the practice of midwifery in that hoſpital, and, in a particular manner, the total abſence of this fever.

IV.

Experiments upon the Human Bile, and Reflections on the Biliary Secretion; with an introductory Eſſay. By James Maclurg, M. D. 8vo. London.

IN the introductory eſſay prefixed to theſe experiments, the ingenious author inculcates the neceſſity and advantage of reaſoning in medicine. He is at particular pains in obviating the objections which have been made to reaſoning, from the frequent and great changes which medical theories have undergone. And he even goes ſo far as to alledge, that the perpetual growth and contention of ſyſtems is a mark of vigour in the ſtate of medical knowledge.

His experiments upon the bile are thirty-eight in number. All of them were made with human cyſtic bile; and moſt of them in the way of mixture.

In the firſt eight experiments, the author endeavours to aſcertain the effects of mineral acids upon the bile. Theſe he found, when applied ſtrong, united with the bile, and diſſolved it in a ſhort time, with ſome variations of the phaenomena producing a fine green colour.

From the inflammable nature of biliary concretions, and from the effects of the principle of inflammability upon acids in metallic ſubſtances, and other mixtures, as explained by Dr Black in his chemical lectures, Dr Maclurg concludes, that the green colour is to be aſcribed to the union of the acids with the phlogiſton of the bile. In this opinion he is confirmed by the fugitive nature of this green colour upon the mixture of nitrous acid and bile. This colour vaniſhes, while a flame coloured elaſtic vapour flies off from the mixture. And farther, as the bile, upon the addition of acids, loſes, not only its colour, but alſo its bitterneſs, he concludes, that both the colour and taſte of the bile depend upon the phlogiſton which it contains.

In the ninth and tenth experiments, the author gives an account of the effects of vegetable acid upon the bile. He found, that vinegar and juice of lemons inſtantly coagulated bile, at the ſame time changing its colour to yellow.

From the eleventh experiment, it appears, that the mineral acids, in a diluted ſtate, have nearly the ſame effect upon the bile as the vegetable.

table. This Dr Maclurg aſcribes to their having, when in a diluted ſtate, a leſs vehement attraction to phlogiſton. By the twelfth and thirteenth experiments, he finds, that bile is alſo coagulated by ſpirit of wine, and by heat. This ſuggeſted to him the ſuſpicion of there being a quantity of coagulable lymph in the bile; in which opinion he was confirmed by the fourteenth and three following experiments. In theſe, he ſeparated the coagulable ſubſtance from every other part of the bile, and found it anſwer to all the teſts of coagulable lymph when tried with ſpirit of wine, alkali, and acid.

The coagulum of the bile, formed by the vegetable acid, being a combination of the colouring matter of the bile with its lymph, is the ſubject of the eighteenth and ſix following experiments. From trying this coagulum with different acids, water, ſpirit of wine, a ſolution of cauſtic alkali, &c. it appears, that the colouring matter of the bile is affected by the ſame relations when coagulated, as before coagulation. That the vegetable acid, however, does produce ſome change upon it, is evident, from the colour of the coagulum being different from that of the original bile. As by this change the cyſtic bile approaches nearer to the colour of the hepatic, and, as its former colour may be reſtored by the addition of an alkali, the author concludes, that the colour of the cyſtic bile depends upon an alkaline nature which it acquires during its ſtagnation in the gall-bladder. This circumſtance, he thinks, may alſo account for its greater bitterneſs.

The next ſet of experiments were made with a view to examine the opinion of Mr Durade, who has alledged, that the colour of the bile depends upon iron. But, upon trials with the alkali prepared for making Pruſſian blue, and with powder of galls, he could find no reaſon for being of that opinion.

The eight laſt experiments are made with a view to determine the relation of bile to putrefaction. Upon trying putrid bile with acids, ſpirit of wine, and heat, the author found that the coagulability of the bile was diminiſhed by putrefaction; but that its bitterneſs was rather encreaſed. It appears, therefore, that the bitterneſs of the bile reſiſts the effect of putrefaction in changing the qualities of bodies, and continues unaltered, when the coagulable matter has proceeded far in its degeneracy. Beſides this, from the 36th, 37th, and 38th experiments, the author finds, that bile, in its own nature, is antiſeptic, but that, when coagulated by acids, it imparts to water a ſtronger antiſeptic power than is to be found in pure and unaltered bile. From this he concludes, that the antiſeptic principle of the bile is connected with its bitterneſs, and that probably it is alſo a quality of the colouring matter.

After theſe experiments, Dr Maclurg proceeds to his reflections on the biliary ſecretion. Here our author firſt remarks a ſtrong analogy between the milk, the bile, and the common maſs of blood. Their baſis, he obſerves, is a coagulable matter. They all contain a matter analogous to the ſugar of vegetables; and, from the beſt chemical analyſis, their ſaline contents appear alſo to be the ſame. Their colouring matter, he obſerves, is indeed a good deal different: But, as the beſt chemiſts ſuppoſe that the colouring matter of the blood is formed from the oil of the milk, ſo the ſame powers continuing to act may, he imagines, change the colouring part of the blood into that of the bile. He allows, however, that theſe colouring matters, although, in their nature analogous, are in different ſtates, as they do not give the ſame phaenomena on their mixture with the acids.

The author next obſerves, that the yolk of an egg has a great analogy to the blood. It is intended for the formation of blood in the foetus, and contains a colouring matter, which, like that of the blood and bile, flies off with ſtrong acids. Thus, ſays he, we have a ſcale of animal fluids, all of which are ſimilar, yet all different. Theſe are, the milk, the yolk of the egg, the blood, and the bile. It is their common character to contain a coagulable matter, united with other ingredients, the chief of which is phlogiſton.

This phlogiſton, by the animal proceſs, is gradually evolved, and, at length, in the bile, gives evident indications of its being preſent in the moſt ſimple and active ſtate. In proof of this, he adduces many arguments, with a view to eſtabliſh a connection between the oil of the milk, the colouring matter of the blood, and that of the bile. Theſe are chiefly deduced from the influence of diſeaſes upon the bile, and the effects of exhauſtion, either by large evacuations, or want of aliment.

After his remarks on the colouring matter, he next makes ſome reflections on the coagulable part of theſe ſimilar fluids. From experiments and obſervations, he concludes, that, in the milk, which is the one extreme of this ſcale, the union of the coagulable lymph with the other parts is the leaſt intimate; and that, in the bile, which is the other extreme, it is moſt complete. He ſuppoſes, therefore, that the union of the parts of theſe analogous liquors, is gradually rendered more perfect by the continuance of the animal ſeptic proceſs.

Having thus ſtated the relation between the bile and other animal fluids, Dr Maclurg next applies theſe obſervations to account for many phaenomena in diſeaſes, particularly for that great redundancy of bile ſo much connected with the intermittent and remittent fevers, and the dyſentery of warm climates. He is of opinion, that the marſh miaſmata, inducing theſe fevers, operate as a putrid ferment in the ſyſtem. Hence the biliary ſecretion, which is intended for the diſcharge of degenerating lymph and red globules, muſt be augmented by the introduction of this ferment. He concludes, therefore, that the increaſe of this ſecretion is a means which nature employs in theſe diſorders for her relief; and that the general method of cure ſhould conſiſt in promoting the biliary diſcharge by the ſafeſt and moſt expeditious means ; and in correcting, by tonics and antiſeptics, that ſtate of the conſtitution which makes it neceſſary.

Our author's next reflections are, with reſpect to the influence of bile upon digeſtion. He is of opinion, that digeſtion is performed by fermentation, and is attended with the conſtant generation of acid in the ſtomach. The firſt operation of this acid liquor, after paſſing the pylorus, will be to coagulate the bile. The coagulum of bile is not miſcible with water, but communicates to it ſomething of a more antiſeptic nature than pure bile itſelf. Thus the antiſeptic principle is evolved and ſeparated from the putreſcent coagulable part. And, while the latter is committed to the alvine diſcharge, the former is applied to uſeful purpoſes in the oeconomy. This, he obſerves, gives us another view of the final cauſe of that large ſecretion of bile, which is the conſtant effect of long continued heat ; and of that appetite for acids which then ſubſiſts.

One of the moſt curious facts reſpecting the ſecretion of bile, is its relation to the paſſions. This is the next ſubject of reflection. The ſecretion of bile is remarkably increaſed, by anger and by terror. Theſe paſſions are intended to prompt us to oppoſe, or to avoid any power which threatens danger. And here the author imagines we muſt look for the final cauſe of the large ſecretion of bile which in general attends them. Low ſpirits, timidity, and deſpair are frequently obſerved to be effects of a feeble ſtate of action in the alimentary canal. An oppoſite temper of mind is connected with an oppoſite ſtate of this function. A quantity of bitter fluid, therefore, poured into the alimentary canal, by ſtimulating it to a ſtronger action, will anſwer the purpoſes of both paſſions.

The next obſervation our author makes is, with reſpect to the influence of bile upon temperament. A bilious temperament, he obſerves, is naturally produced by exceſſive heats, and is the common one in warm climates. This he aſcribes to the acceleration of the ſeptic animal proceſs which there takes place.

The laſt ſubject on which our author offers any reflections is biliary calculi. He obſerves, that art can do little in removing theſe concretions; and that therefore it ſhould be our endeavour to trace them to their origin, and diſcover, if poſſible, the means of preventing their formation.

From many facts, he is inclined to believe, that the common opinion, of gall-ſtones being formed in conſequence of the ſtagnation of bile, is ill founded, and that many of them are originally bile coagulated by an acid. This acid, formed in the ſtomach, may, he imagines, be inſinuated into the end of the ductus communis, and the bile with which it there comes in contact, will immediately take the form of a cheeſy concretion. This coagulum will afterwards be either puſhed into the duodenum, or carried into the gall-bladder, according to the determination of motion in the ducts. In the latter caſe, it will produce biliary calculi.

The author, however, does not imagine, that, in this way, all biliary concretions are produced. Thoſe found in the biliary pores of oxen are, he allows, independent of coagulation from acid; and he alledges, that their different appearance evidently ſhews a different origin. Theſe he aſcribes to a general diſpoſition in the fluid to concrete.

From ſome experiments made with biliary concretions, he concludes, that they are compoſed of the ſame materials with the bile itſelf; but that they have undergone ſome ſpontaneous change, during their ſtagnation in the body. Hence the colouring matter of theſe calculi does not produce that fine vivid green with acids which the bile itſelf and the freſh coagulum of that fluid exhibit. And the coagulable part has acquired the appearance of a calcareous or chalky matter.

Granting that acid in the alimentary canal is a ſource of biliary concretions, their prevention, our author obſerves, is not to be effected by the deſtruction of acid. Acid is continually generated in digeſtion, and probably ſerves ſome important purpoſes in the oeconomy. Beſides, in the healthy animal, it produces no bad effect. Moſt probably, then, it only tends to generate calculi, in conſequence of ſome inverſion of the ordinary motion in the alimentary canal, which is in ſome degree confirmed, from conſidering that biliary calculi are connected with gouty and nephritic conſtitutions. In order, therefore, to prevent the formation of biliary calculi, every thing which tends to weaken the nervous ſyſtem, and of conſequence the alimentary canal, muſt be avoided. With this view, ſedentary life, and full luxurious diet, are particularly to be guarded againſt.

gainſt. Recourſe muſt, at the ſame time, be had to thoſe means which nature ſeems to have appointed for maintaining the vigour of the ſyſtem, eſpecially a certain degree of cold, and proper bodily exerciſe.

V.

Jacobi Bartholomaei Beccarii *Opuſculum de Lacte*. *Vid. De Bononienſi Scientiarum et Artium Inſtituto atque Academia Commentarii.* Tomi Quinti Pars prima, 4to, Bonon.

BEccarius had formerly publiſhed ſeveral experiments on corns and broths of different kinds, which received very general approbation. His induſtrious reſearches have not ſtopped there. In the paper now before us, we are preſented with the reſult of many experiments which he has made on milk. Without repeating the experiments which had been made by Boerhaave and Macquer on this ſubject, he takes it up where they had left it. Boerhaave, from his experiments, had concluded, that cows milk which was the ſubject upon on which he chiefly operated, neither contained an acid nor an alkali; that it was hardly in any degree ſaline; and that it yielded no ſpirit upon diſtillation. And Macquer was of opinion that it contained no ſalt, which was not to be referred to the tribe of acids, and yielded nothing which gave even the ſlighteſt indication of volatile alkali. The experiments of our author, however, led him to form very different concluſions.

His firſt experiments were made with that fatty, ſweet-taſted reſiduum, which is obtained on the ſimple diſtillation of milk. With this he filled a retort to about two thirds, and ſubjected it to a heat, at firſt gentle, but afterwards encreaſed to a conſiderable degree. In the beginning, a watery, limpid, taſteleſs liquor aroſe; after this, it appeared of a ſtraw colour, and was ſomewhat acid to the taſte; it then became more and more of a deep colour, and, at the ſame time, more acid; towards the end, it became blackiſh and empyreumatic; and, at laſt, upon the heat being greatly encreaſed, white vapours aroſe and flew about the receiver, till ſome of them were condenſed into a liquid, and others adhered in a ſolid ſtate to the ſides of the veſſel, in the form of diſtinct and beautiful ramifications; in the mean time, a thick foetid oil began to cover the top of the liquor, which put an end to the proceſs. In the retort, there remained a thick black coloured ſubſtance.

The next experiments made by the author were with the ſerum of the milk. By a very gentle heat, he drew off all the watery part of the ſerum, ſo as to leave nothing but what is commonly called the ſugar of milk. This he ſubjected to the ſame proceſs as the maſs laſt mentioned, and with preciſely the ſame effect.

From theſe experiments, Beccarius was led to imagine, that both the milk, taken altogether, and the ſerum, when ſeparated from it, contain no inconſiderable proportion of a volatile alkaline ſalt. To ſatisfy himſelf with regard to this, he next endeavoured to inveſtigate the nature of thoſe products which he had obtained. From the common teſts by which acids and alkalines are detected, he found that the fluid which he had obtained was an acid. Whilſt the more ſolid ſublimate which came over at laſt, was evidently of an alkaline nature.

Having, from theſe experiments, diſcovered that both milk and its ſerum contain a volatile alkali; he obſerves, that an alkali might naturally be ſuppoſed to be preſent alſo in cheeſe. But, as Mr Macquer had been of a different opinion, he reſolved to determine this alſo by experiment. For this purpoſe he employed a glue, well known to joiners, which is prepared from cheeſe by boiling and preſſure. He was led to prefer this glue to the cheeſe itſelf, as he had formerly found, that even the glue from corn was of an animal and alkaline nature. Having put ſome of this glue into a retort, he expoſed it to a heat at firſt gentle, but afterwards more conſiderable. There aroſe, at firſt, a limpid fluid, then a turbid milky one of a urinous ſmell. After this, there came over a vapour, ſome of which covered the ſides of the receiver, and ſome was converted into an acrid liquor, very ſimilar to that which is obtained from animal ſubſtances. Along with all theſe products, ſome oil came over, which became thicker and blacker as the diſtillation advanced. The maſs remaining in the retort was very dry and much burnt.

Our author concludes this paper, by pointing it out as a ſubject of enquiry, whether theſe alkaline ſalts be always preſent in the milk in a determined proportion? or, whether the quantity produced may be varied by the means uſed for ob-

obtaining them? This queſtion, from the experiments now before us, he admits, that he is unable to determine. But, he obſerves, that, from the experiments which he has made on wheat, it appeared that the proportion of alkaline ſalt, contained in equal quantities of the ſame matter, never varied.

VI.

Vincentii Menghini *Opuſculum de Aquarum vi in Calculis diſſolvendis. Vid. De Bononienſi Scientiarum et Artium Inſtituto atque Academia Commentarii.* Tomi Quinti Pars prima, 4to, Bonon.

MENGHINUS had obſerved, that different waters poſſeſſed a power of diſſolving human calculi. He was led, therefore, to make the following experiments, with a view of diſcovering, whether this power reſides in pure water, or is the effect of their being impregnated with any particular ſubſtances.

With this intention, he employed five different kinds of water, viz. diſtilled rain-water; rain-water not diſtilled; well-water, with a ſmall impregnation of clay; very pure well-water; and rain-water impregnated with ſoluble tartar. To ten ounces of each of theſe waters, put into a phial by itſelf, he added a bit of hard human calculus, weighing fourteen grains. To prevent any deception in theſe experiments, the bit of calculus put into each phial was taken from the ſame maſs. Theſe phials were then expoſed to a heat very near that of the human body. At the end of a few days, air-bubles could be diſcovered on the ſurface of the water contained in all the phials. Theſe continued, at times, to ariſe during the whole ſpace for which they were kept in this ſtate. At the end of twenty days the calculi were taken out. That which was in the diſtilled rain-water had loſt two grains of its weight; and, after rubbing off from it a thin mucous coat, upon being touched, it tinged the fingers with a white colour; ſmall pieces could, at the ſame time, be eaſily broken off from it. The ſtone, which was in the undiſtilled water, had loſt three grains of its weight. Every other circumſtance attending it was the ſame as before obſerved with regard to the laſt. That which was in the well-water impregnated with clay had loſt ſix grains, with the ſame appearance as the two former. That in the pure well-water had loſt ſeven grains, and was in the ſame ſtate with the others, except, that its covering was of a gummy, rather than of a mucous conſiſtence. And, laſtly, That which had been in the rain-water, impregnated with ſoluble tartar, after the removal of its mucous covering, which weighed half a grain, was found to have loſt eight grains. Our author farther obſerves, that all theſe waters, a few days after the ſtones were taken out of them, depoſited ſediments, but with different appearances.

Still farther to determine the reſpective differences of theſe waters, in diſſolving calculi, the ſame ſtones were again put into waters of the ſame kind, and in the ſame manner. That which had before loſt eight grains, was now reduced to one grain. Thoſe put into the two different kinds of well-waters, and into the undiſtilled rain-water, loſt each four grains more. And, laſtly, That in the diſtilled rain water ſuffered a diminution of one grain only. From theſe experiments, then, the author concludes, that the power which waters poſſeſs of diſſolving calculi depends upon ſome impregnation; and that this power is varied

ried in different waters, from differences in the ſubſtances with which they are impregnated.

The author, next, endeavours to determine the comparative power of diſſolving calculi, obtained by different impregnations; and, from a ſet of experiments, made with this view, he found, that ſoluble tartar is more effectual in rendering water capable of diſſolving calculi than Glauber's Salt, Sea Salt, Nitre, Sal Ammoniac, Alum, or Regenerated Tartar.

VII.

Jani Planci Ariminenſis *Epiſtola de Urina Veneta. Vid. De Bononienſi Scientiarum et Artium Inſtituto atque Academia Commentarii.* Tomi Quinti Pars prima, 4to, Bonon.

THE author of this letter gives an account of a man, who, for eight or ten days before his death, voided urine with a ſediment reſembling Pruſſian blue. This patient was about ſixty years of age, and of a ſtrong conſtitution; but he had for two years laboured under a dyſuria. This, however, had been leſſened by diluents,

ents and demulcents. A few days before his death, being much depreſſed with grief, he was attacked with a fever, attended with great dryneſs of his tongue and fauces, probably in conſequence of his refuſing to drink ſufficiently. It was not, however, accompanied with any conſiderable heat, or great alteration in his pulſe. After the third day of this fever, he began to diſcharge urine with a blue ſediment. Our author collected it for three mornings, evaporated it by the heat of the ſun, and found it greatly to reſemble the Pruſſian blue. For the three ſucceeding days, the whole urine diſcharged during the night, at which time the blue ſediment had before principally appeared, became of a greeniſh colour, and acquired a ſmell, much reſembling that of ſpirit of Sal Ammoniac. From this urine, upon being filtrated, a powder was obtained reſembling verdegris. For the three laſt days before death, the urine could no longer be collected, as it was conſtantly diſcharged in drops; but, during this time, it continued to tinge the linnens of a blue colour. He then died, being at length worn out by continued abſtinence from food and medicines.

Upon examining his body the day after, the back part appeared very livid, and, on the fore part, were many puſtules, reſembling the eruption in the gutta roſacea. Theſe puſtules had begun to appear a few days before his death. The bladder was much thickened, and had numerous plicae reſembling thoſe of the ſtomach. The ſphincter of the bladder was much contracted; but the ureters were ſo much dilated, as to be about the ſize of the inteſtines of a lamb. A portion of urine was contained in the bladder; but it had not the blue ſediment. The kidneys were flaccid, but ſound, and had no appearance of any blue tinge. The inteſtines, ſtomach, and lungs, were gangrenous.

Whilſt this caſe was the ſubject of converſation, a woman, aged about ſixty, came to the author, and gave him an account of ſomething ſimilar having happened to herſelf. She informed him, that, about twenty years before, ſhe had laboured under hyſteric ſymptoms, which ſhe aſcribed to a deficiency of her menſes. For the removal of theſe complaints, ſhe took ſome medicated broths; and, when ſhe was coſtive, a ſmall pill leſs than a pea. But, from this pill, a violent purging came on, which was ſucceeded by a diſcharge of urine with a blue ſediment. This ſediment adhered ſo ſtrongly to the ſides of the veſſel in which the urine was contained, that it was with great difficulty removed from thence. After three or four days continuance, this appearance in her urine ceaſed. It deſerves to be remarked, that, in this caſe, as well as the former, it was not the urine itſelf, but the ſediment only, which had a blue colour.

After narrating theſe two caſes, our author obſerves, that Actuarius, one of the laſt Greek phyſicians, gives an inſtance of blue urine in a boy, from taking a bitter pill, intended for another patient. In that caſe, the urine was firſt black and then blue; but ſoon after, it reſumed its natural colour without any inconvenience. Actuarius alledges, that ſuch urine is not a dangerous ſymptom, if it proceed from any medicine; but that, in all other caſes, a blue colour in urine is next to a black one, the moſt fatal appearance that can occur in it. Our author, however, thinks it probable, that Actuarius had never ſeen any other caſe of blue urine, as he mentions this one only. He concludes, therefore, that he had formed his prognoſis concerning it entirely from the Galenical doctrine of humours.

Our author concludes this letter, by hinting it as a ſuppoſition, that the pills taken by the old woman, and by Actuarius's boy, might have been compoſed of colocynth. In proof of which, he obſerves, that this medicine is not only bitter, but is likewiſe a ſtrong purgative. He ſeems alſo to think, that his patient might have taken ſome ſuch medicine, although he would not diſcover it.

VIII.

Guſmani Galeatii *Opuſculum de Cortice Peruviano. Vid. De Bononienſi Scientiarum et Artium Inſtituto atque Academia Commentarii.* Tomi Quinti Pars ſecunda, 4to, Bonon.

THE intention of this diſſertation is, to correct ſome particulars obſerved by the celebrated Torti, reſpecting the uſe of Peruvian bark in the cure of intermittent fevers, which our author thinks are contradicted by experience. He ſets out with obſerving, that the enumeration of the ſpecies of fevers, which is given by Torti, is incomplete. To theſe ſpecies, he thinks, one ſhould be added, which is neceſſarily attended with aſthma, and which may be removed alſo by the uſe of bark.

The nature and cure of this fever he illuſtrates with two caſes. The firſt is the caſe of a man about ſeventy years of age, who was attacked with an acute continued fever, attended with orthopnoea, ſtertor, and cough. This fever, about the ſeventh day, manifeſtly remitted, the ſymptoms being always more mild in the morning, and ſuffering an exacerbation in the afternoon. With a view to remove it, the patient had been blooded three times, and had taken emollients and attenuants; but without any relief. He was then ordered to take eight drams of Peruvian bark every day; but he had ſcarce taken it two days before he expectorated a large quantity of bloody bilious matter, by which his ſymptoms were greatly relieved; and, in a few days longer, from the continuance of the bark, he was reſtored to perfect health.

The ſecond caſe is that of a woman, aged forty, who had been ſeized with a tertian intermittent fever, in the ſpring, from which ſhe was freed by the uſe of Peruvian bark. But, forſaking the remedy too ſoon, and returning to work, in the enſuing autumn, ſhe was attacked with a ſevere cough, and difficulty of breathing. With theſe complaints, ſhe could lie only on one ſide. They were, at the ſame time, attended with a ſlow continued fever, which ſuffered exacerbations towards night. Her expectoration was in ſmall quantities, of a very thick conſiſtence, and greatly reſembled pus. Veneſection, emollients, and expectorants, gave her no relief. And, as great proſtration of ſtrength and emaciation ſuperveened, a phthiſis was apprehended. In theſe circumſtances, Galeatius ordered this patient two drams of Peruvian bark every day, continuing, at the ſame time, proper expectorants. She had ſcarce taken an ounce of this medicine, before the difficulty of breathing was ſo far removed, that ſhe could lie in any poſture with eaſe; the fever and cough were leſſened, and the expectoration altered much for the better. After continuing this courſe for about a fortnight, her fever was quite gone, and her ſtrength perfectly recovered.

The next ſpecies of fevers, our author conſiders, are thoſe accompanied with lethargy. In the cure of theſe, he obſerves, that the uſe of Peruvian bark has been no leſs ſucceſsful than of ſuch as are accompanied with aſthma. On this ſubject alſo he preſents us with two caſes.

The firſt is the caſe of a prieſt, about eighty years of age, who was ſuddenly ſeized with ſtupor, reſembling apoplexy, and remained a whole day without ſenſe or motion. Theſe ſymptoms were at the ſame time accompanied with fever. By the aſſiſtance of blood-letting, and other remedies, he recovered, and continued well for about twenty-four hours. But he was again ſeized in the ſame manner as before with a ſecond attack of the fever and other ſymptoms. From this ſecond remiſſion, our author concluded his patient's diſeaſe to be a lethargic tertian. He therefore ordered him an ounce of Peruvian bark, which prevented the return of the lethargy, and greatly moderated the fever. Soon after, it was entirely removed.

The ſecond caſe is that of a man, about thirty years of age, who had removed a tertian intermittent by the Peruvian bark, and a ſuperveening jaundice by other remedies. But he was ſoon after ſuddenly ſeized with loſs of ſpeech and ſenſe, attended with violent cries and convulſive motions. In this condition, he remained above twenty hours, notwithſtanding the uſe of the lancet, cupping, friction, and other ſtimulants. At length, however,

ever, he very unexpectedly opened his eyes, began to ſpeak, and move, and willingly drank ſomething, which before had been offered him in vain. And, although his fever ſtill remained, it was now become much milder. But, after ſix hours, it again encreaſed with a return of the former ſymptoms. The remedies which were before employed for his relief being again tried in vain, the uſe of Peruvian bark was determined on. Half an ounce of it, therefore, in fine powder, was immediately given him. And, although he vomited a conſiderable part of it, yet enough was retained to procure a remiſſion of his ſymptoms. By the repeated uſe of it, he was ſoon after reſtored to perfect health.

Another particular mentioned by our author, in oppoſition to the opinion of Torti, is, that the activity of the Peruvian bark in the cure of fevers, may, in ſome caſes, be encreaſed from combining it with other medicines. He obſerves, that ſeveral caſes of cholera morbus and dyſentery had occurred to him, which confirm this opinion. Of theſe, he here preſents us with two caſes by way of example, in which the Peruvian bark failed, when given alone; but ſucceeded, when combined with caſcarilla.

The firſt was the caſe of an old man afflicted with dyſentery, and a ſlow remittent fever. After many other remedies had failed, he took two drams of Peruvian bark for ſeveral days, without any other effect except a ſmall diminution of his fever. But afterwards, he was ſoon entirely cured by the daily uſe of one dram of Peruvian bark combined with a ſcruple of caſcarilla.

The ſecond is the caſe of an old woman, who, notwithſtanding the uſe of Peruvian bark, was ſubject to frequent returns of a tertian fever. She was at length ſeized with vomiting, ſucceeded by diarrhoea, both which were removed in a few days, by the Peruvian bark combined with caſcarilla. After this time ſhe ſuffered no relapſe.

As a farther confirmation of the advantages to be derived from combining Peruvian bark with caſcarilla, the author mentions the caſe of a young knight, who employed it for the cure of a tertian, under which he laboured. It purged and ſweated him violently, without relieving his diſeaſe. But, upon the addition of the caſcarilla, he was ſoon perfectly cured of his fever, by means of it, without either purging or ſweating.

The author further endeavours to confirm the propriety of exhibiting other medicines with Peruvian bark, in ſome caſes, from the authorities of Albertinus, Mangetus, and Doleus. He likewiſe differs from Torti, in his aſſertion that two ounces of Peruvian bark are capable of removing any fever in which it can be of ſervice. On the contrary, he affirms, that he has frequently found it neceſſary to give it from five ounces to a pound with ſucceſs.

IX.

Cajetani Tacconii *Opuſculum de Rachitide. Vid. De Bononienſi Scientiarum et Artium Inſtituto atque Academia Commentarii.* Tomi Quinti Pars ſecunda, 4to, Bonon.

IN this diſſertation, the author ſets out with a particular hiſtory of the caſe of a woman afflicted with the rickets, in which very uncommon appearances occurred. When about three years of age, ſhe began to be diſtorted in her thorax both before and behind. In a ſhort time after, not only the ſpine and ribs, but alſo the bones of the arms were much bent. About the ſeventh year of her age, to theſe diſtortions were ſuperadded weakneſs, torpor, inactivity, and every other ſymptom of true rachitis. She lived, however, during a continual encreaſe of theſe complaints, till the forty ſeventh year of her age. But then, being worn out with pain and other afflictions, ſhe died.

Upon opening her after death, a very great tumour preſented itſelf in the abdomen. It was of a white colour, and felt ſomewhat rough. By its bulk, it filled not only the abdomen, but alſo a conſiderable part of the thorax. Part of the inteſtines were forced into the pelvis, and part with the ſtomach, ſpleen, and liver into the thorax. The liver was puſhed up as far even as the clavicles. This tumour was covered with a fine thin membrane, which proceeded from the lumbar vertebrae, and was thicker and ſofter about the kidney than at any other place. There alſo it was full of varicous veſſels. This tumour, at firſt ſight, appeared to be a ſchirrus; and, as it ſeemed to be divided by four furrows, it was concluded, that it conſiſted of four different parts. Upon endeavouring to cut into the part which firſt preſented itſelf at the navel, it was found that a knife could not penetrate it. A ſaw, therefore, was employed, as it was concluded to be of a bony conſiſtence. This was found to be really the caſe, and, when it was opened, it exhibited a cavity reſembling that of a human ſkull. This cavity contained about a pound and a half of a viſcid fluid. The inner, as was all the outer ſide of this tumour, was lined by a membrane. Oppoſite to the navel, when it was firſt opened, the bone was about the thickneſs of a finger breadth. But towards its baſe, at the loins, it was of the thickneſs of two fingers breadth and a half. Where it had the appearance of bone, it was of a ſpongy texture. But as it extended upwards to the diaphragm, it became gradually ſofter, and ſeemed, at laſt, to be of a ſchirrous nature. From attentively conſidering its origin, it appeared to be a tumour of the myſentery.

The ſecond tumour much reſembled the former; but it was ſchirrous only, and had no where aſſumed the conſiſtence of bone. It was joined to the other about the right hypochondrium, and occupied the ſeat of the liver and ſtomach. As well as the former, it likewiſe formed a cavity containing upwards of two pounds of fluid. Its cortical ſubſtance was about two fingers breadth in thickneſs.

The third tumour was alſo of a ſchirrous nature. It was leſs than the former, and united ſo cloſely to the left kidney, that they could not be ſeparated without great difficulty. This kidney was at the ſame time diminiſhed to half the ſize of the right one.

The fourth tumour was of the ſame nature as the two former. It was almoſt totally ſituated in the thorax, and was joined to the upper part of the great bonny one.

The length of theſe four tumours, taken altogether, was thirty-four inches; their depth twenty-four inches; and the weight of the whole was thirty-two pounds.

The author thinks it needleſs to give any account of the carious ribs and vertebrae, and other morbid appearances common in the rickets, which were alſo to be met with in this caſe. He next proceeds, therefore, to conſider the cauſe of the rickets; and, on this ſubject, he adopts the opinion of Boerhaave, who thought that our aliment, part of which is of an aſceſſent nature, is not fit for the purpoſes of nutrition and growth, till it has acquired an alkaline tendency. To this opinion, he more readily aſſents, as it ſeems to agree with the experiments of Ruyſch, who found that alkalines preſerved the hardneſs and ſolidity of the bones, but that acids rendered them more ſoft and flexible. Since, therefore, the rickets proceed from weakneſs of the bones, and laxity of the ligaments, giving riſe to diſtortions, he thinks it evident that this diſeaſe muſt be aſcribed to acidity in thoſe humours which nouriſh the bones.

He next obſerves, that it will not be improper to inquire in what manner the bones are nouriſhed. He totally denies that they receive their nouriſhment through bonny canals, unleſs it may be allowed, that ſomething of this kind takes place with children, whoſe bones being ſofter, may be nouriſhed differently from thoſe of adults. He farther adds, that he could never find any glandular ſubſtance, which, as has been aſſerted by ſome, could aſſiſt in the nutrition of the bones. He is of opinion, that the nutrition of the bones is to be referred to their membranes alone. In ſupport of this opinion, he adduces the diſſection of the leg of a man who died of a fever, ſoon after he had recovered from a fracture of the tibia. In this caſe, he found that the re-union of the bones had been effected by a callus, produced from the perioſteum, and that the fractured ends remained perfectly diſtinct.

The author next enumerates ſeveral phaenomena, which he has obſerved with reſpect to the bones of rickety patients. He informs us, firſt, that the bones are almoſt always bent, where they receive the greateſt number of arteries. *2dly*, That theſe arteries dilate when they enter the bones, and are again conſtricted immediately after they have entered them. *3dly*, That the holes and cells in the concave part of the bones are filled with blood. *4thly*, That theſe cells are in general deprived of perioſteum; but, where any can be found, it is obſerved in an ulcerated ſtate. And, *laſtly*, That the convex part of the bones is in no degree altered from its natural ſhape, except in being bent.

In the concluſion of this paper, we are preſented with ſome obſervations on the cure of the rickets. Here, our author, in general, approves of the medicines which have been commonly preſcribed. But he objects to the ordinary method of applying emollients, corroborants, and ſupports to the affected bones. He adviſes, that corroborants and ſupports ſhould be applied to the concave part of the bones, as being principally weakened; but that emollients ſhould be applied to the convex part, as he conſiders them to be preternaturally hardened.

X.

Johannis Babtiſtae Gaber *De Humoribus Animalibus Specimen tertium. Vid. Melanges de Philoſophie et de Mathematique de la Société Royale de Turin.* Tom. 3. 4to, Turin.

MR GABER, who had before written two diſſertations concerning animal fluids, here preſents us with a third upon the ſame ſubject. In the proſecution of his experiments on the ſpontaneous changes of theſe fluids, he was induced to employ them in ſeveral ſtates, in which they naturally appear. Accordingly, the experiments here related, were made on that part of the blood which is commonly called the membrane of Ruyſch, on the flocculi afforded by blood diſcharged from a vein into warm water, on the fibrous baſe of the craſſamentum, and on the eſſential ſalt of the blood.

By the help of cold, he ſeparated the coagulable and aqueous parts of the ſerum. Theſe he found nearly equal. The firſt, by digeſtion in cloſe veſſels, exhibited a purulent ſediment, ſurrounded by a very ſmall quantity of water. The laſt had all the properties of an aqueous fluid.

The pleuritic cruſt of the blood, diſſolved by volatile alkali, was reſtored to its natural ſtate by the addition of nitrous acid. But it was reduced to a gelly only, by the admixture of water. From this, our author concludes, that, by ſolution with the alkali, it does not aſſume the nature of a ſoap. The tender conſiſtence which it acquires in the laſt caſe, he aſcribes to a part of the water ſtill remaining in its pores. The acid, however, reſtores it to its proper conſiſtence, as it is capable of attracting both alkali and water.

The next experiments he made were with that ſabulous matter which the purulent ſediment of the ſerum, in proceſs of time, depoſites. This, he found, could not be diſſolved by water, ſpirit of wine, or diſtilled vinegar; but it was readily and perfectly diſſolved by the acid of nitre and volatile alkali. From theſe trials, he concludes, that this ſabulous matter does not conſiſt either of ſaline particles, or of the coagulable part of the blood; and that it differs from biliary and urinary calculi, and from gouty tophaceous concretions.

The pleuritic cruſt of the blood, when kept for a long time, was melted down into a turbid fluid, which yielded a ſediment, agreeing exactly, in chemical properties, with the ſabulous matter employed in the experiments mentioned above. From this, our author concludes with Sauvages, De Haen, and Queſnay, that this cruſt, although very diſſimilar in appearance, is the ſame with the coagulable part of the ſerum.

When, by repeated lotions, the red part was waſhed away from the craſſamentum of the blood, what remained had preciſely the ſame appearance as the pleuritic cruſt. And, upon trials with Alcohol, Mineral Acids, and Volatile Alkali, it was found to poſſeſs the ſame chemical properties. Hence he concludes, that theſe two ſubſtances are in reality the ſame; and, upon this foundation, he explains many phaenomena which have been obſerved with reſpect to the pleuritic cruſt.

The craſſamentum of the blood, unwaſhed, was hardened by acids and alcohol; but it was not diſſolved by volatile alkali. From this Mr Gaber concludes, that the red globules prevent the action of volatile alkali upon the coagulable lymph.

Blood flowing from a vein into water forms flocculi. Theſe Mr Gaber found to be of preciſely the ſame nature with the pleuritic cruſt of the blood, and the coagulable part of the ſerum. He farther found, that the coagula formed by ſhaking blood, which, in general, paſs by the name of membrana Ruyſchiana, were likewiſe of the ſame nature. Hence he deduces the reaſon why blood on agitation gives no pleuritic cruſt; the matter of which it ſhould be formed being there converted into the membrana Ruyſchiana.

He next proceeds to account for the miſtakes of ſome authors, who have repreſented theſe coagula as ſoluble in ſpirit of wine. This, he thinks, muſt have happened, either from their uſing a weak ſpirit, or careleſsly allowing putrefaction to come on. With reſpect to the action of fixed alkalines on theſe coagula, he found, that oleum tartari per deliquium hardened them as much as ſpirit of wine; and that this hardneſs remained, although they were ſubjected to digeſtion.

It has long been a ſubject of diſpute, whether fixed and volatile alkalies be of a ſeptic or antiſeptic nature. This queſtion, our author imagines, may with certainty be determined from the facts above narrated. He points out the fallacy of judging concerning this ſubject from the odour emitted. But, as it is the property of putrefaction, to melt the ſerum, and to deſtroy its coagulable nature, he imagines, that, upon this ground, the queſtion may be determined. The influence of the fixed alkali in hardening the coagulable lymph puts, he thinks, its antiſeptic nature beyond all doubt. He is of opinion, that volatile alkali is likewiſe antiſeptic. For, although it does diſſolve the coagulable part of the blood; yet the diſpoſition to coagulate is evidently not loſt, but is recoverable upon the abſtraction of the alkali.

He next endeavoured to determine the action of quick-lime upon the inflammatory cruſt of the blood, and other coagula of the ſame nature. He found that it quickly reduced them to a ſtate of gelly, and afterwards perfectly diſſolved them. But, upon the addition of aqua fortis, they were again reſtored to their former conſiſtence and colour.

The author next gives us an account of ſome trials which he made, with a view of obtaining the eſſential ſalt of the blood. This he firſt attempted, by ſeparating the watery from the coagulable part, in conſequence of congelation ; and afterwards the ſaline from the watery, by means of fire. But, in this way, he could obtain no ſalt. He then put a quantity of ſerum into boiling water, which turned the whole to a milky colour. The watery part, in this caſe, obtained by ſtraining through paper, acquired, upon evaporation, a very ſalt taſte ; but, when it was allowed to cool, no cryſtals could be found in it. From this, Mr Gaber concludes, that the native ſalt of the human blood never cryſtallizes without great difficulty.

This paper is concluded with ſome experiments on animals killed by heat and inanition. By many, it has been imagined, that, in ſuch caſes, animals die in conſequence of putrefaction. The author's view was to determine this queſtion.

Three rabits were killed by being kept for ſeveral hours in a degree of heat, from ninety-eight to a hundred, in Fahrenheit's thermometer. Upon examination, their lungs were found inflamed; but no foetor or any other mark of putrefaction could be diſcovered ; nor did their blood or bile efferveſce upon the addition of acids. From this, our author concludes, that thoſe who, in ſuch caſes, have found marks of putrefaction had left the bodies in the heat, in which they were killed, for ſome hours after death.

A rabit, after being kept twenty-one days without meat, died from hunger. Upon examination, no ſigns of putrefaction could be diſcovered; nor did its fluids ſhew any efferveſcence upon the addition of acids. Mr Gaber obſerves, however, that authors, of undoubted credit, have aſſerted a contrary reſult from ſimilar experiments. This, he imagines, may be accounted for, from their experiments being made on carnivorous animals. Or, he thinks, it may be aſcribed to the animals they employed being expoſed to cauſes of putrefaction, previous to their experiments.

XI.

Account of an extraordinary ſteatomatous Tumour in the Abdomen of a Woman, by P. Hanly, M. D. *Vid. Philoſophical Tranſactions, Vol.* 61. 4to, London.

A woman of a healthy conſtitution, in the thirty-ſixth year of her age, and fifth month of her pregnancy, became ſenſible of an uncommon lump in the region of her ſtomach, which felt to be about the ſize of a hen's egg. It gave her little pain or uneaſineſs of any kind for ſome time after ſhe perceived it; but, towards the end of her pregnancy, ſhe became much emaciated, and was frequently troubled with reachings and vomiting. On the 23d of May, 1770, ſhe was delivered of a ſtrong healthy child. Three days after this, the tumour being much encreaſed in ſize, and the reachings becoming more violent, ſhe ſent for Dr Hanly. Upon examining her abdomen, he felt a large tumour under the muſcles and peritoneum, extending obliquely from the ſtomach towards the right umbilical region. He could plainly diſtinguiſh on its ſurface firm protuberances, of different dimenſions, which ſeemed to reſemble the head and ſuperior extremities of a foetus. It readily admitted of motion from ſide to ſide; but every attempt to move it downwards was reſiſted, and occaſioned conſiderable uneaſineſs to the woman.

The weakneſs of this patient, and the uncertainty with regard to the nature of the tumour, induced the Doctor to delay giving any deobſtruent medicines till her ſtrength ſhould be recruited. Meanwhile, with a view to obviate ſymptoms, he put her upon a courſe of bitters and abſorbents, and enjoined her not to ſuckle her child. The woman's poverty not admitting of her compliance with the latter part of the advice, ſhe ſoon became very greatly exhauſted, and was, in a fortnight after delivery, ſeized with a hectic fever, attended by the uſual ſymptoms of atrophia; ſmall quick pulſe; loſs of appetite; and night-ſweats. In the mean time, the tumour continued to increaſe in ſize. Dr Hanly then carried along with him ten other phyſicians, ſurgeons, and accoucheurs, to examine it. They were all of opinion, that it was an extra-uterine foetus, the head, trunk, and extremities of which they imagined, they could diſtinctly feel. They determined, however, to leave the event to nature, rather than to perform the Caeſarean operation, which they were convinced the woman had not ſtrength enough to undergo.

In this condition ſhe continued to languiſh under acute pain, and an encreaſe of hectic ſymptoms, till about the end of July. A fluctuation of water was then perceived in her belly, and ſoon after, her legs became oedematous. From this time opiates were frequently employed, and procured her a temporary relief; but the tumour, weakneſs, and other ſymptoms, daily encreaſing, ſhe died on the ſecond day of September.

Upon diſſection, there was found in the cavity of the abdomen, a tumour, about ſeven inches in length; near five in breadth, from the ſternum towards the ſpine; and about three in thickneſs. It adhered above to the anterior part of the ſtomach, and below, to the right ovarium. It greatly compreſſed the colon, anterior lobe of the liver, and ſmall inteſtines, the greateſt part of which it had forced over to the left ſide. It was of the ſteatomatous kind, and about the conſiſtence of tallow, but harder before than behind.

It appeared to be divided by thin membranes into cells, diſtended with a fatty matter, of different degrees of hardneſs. It weighed ſeven pounds, and was of an irregular figure, full of prominences of various dimenſions. From its fatty cellular appearance, Dr Hanly conſidered it to be a production and diſtenſion of part of the omentum.

XII.

Experiments on Putrefaction; by F. L. F. Crell, M. D. *Profeſſor of Chemiſtry at Brunſwick. Vid. Philoſophical Tranſactions*, Vol. 61. 4to, London.

Dr Crell ſets out with obſerving, that, from the ingenious labours of Sir John Pringle, Mr Gaber, and Dr M'Bride, much knowledge has of late been acquired concerning putrefaction. He conſiders it, however, as a ſubject which, as yet, is by no means exhauſted. And here he preſents us with ſeveral experiments, from which he deduces concluſions, in ſome reſpects different from the opinions of the two gentleman laſt mentioned.

Mr Gaber allows that a volatile alkali is produced by putrefaction; but, as he could not diſcover it in the beginning or the end of the proceſs, he denies its exiſtence in theſe ſtates; and concludes, that it is not a neceſſary product of putrefaction. From the ſmell conſtantly emitted by putrid matter, Dr Crell was inclined to be of a different opinion. This queſtion, therefore, are endeavoured to aſcertain by experiment. With this view, he preſents us with the particular detail of two experiments, from which appears, that a volatile alkali is preſent as long at leaſt as a putrid ſmell continues; and that it is the baſis of this ſmell.

If however, it be allowed, that volatile alkali is eſſential to putrefaction, or, at leaſt, is always preſent, he is of opinion, that alkalines can never be uſed, with the living body, as antiſeptics; on the contrary, he alledges, that the moſt powerful remedies which can be employed, with this intention, are acids. He obſerves, however, that Dr M'Bride is of a different opinion, in ſupport of which he has adduced the three following arguments. *1ſt*, That acids, when applied un-changed to the abſorbent veſſels, will not be taken up by them. *2dly*, That, if we ſuppoſe them to be taken up, they would be highly dangerous. And, *3dly*, That in reality they are changed before they leave the primae viae. To the firſt of theſe our author replies, that, as metallic ſalts are evidently abſorbed, he does not ſee why the ſame may not hold of ſimple acid. With regard to their pernicious effect, he alledges, that the experiments upon which Dr M'Bride founds this opinion, will by no means apply to the living body. And, in anſwer to the laſt, he adduces an experiment to prove, that acids, although ſo far changed in the elementary canal, as not to efferveſce with alkalines, may, notwithſtanding, check putrefaction. He concludes, therefore, that, in putrid diſeaſes, their uſe is of great conſequence, and ought never to be omitted.

XIII.

Genera of Birds. 8vo, Edinburgh.

FOR the work now before us, we are indebted to that eminent naturaliſt Mr Pennant. It may be conſidered as a very proper ſequel to the Synopſis of Quadrupeds, with which he has already favoured the world. The author is far from aſſuming to himſelf the entire merit of this new arrangement. He offers it, principally as an improvement of what had before been done upon this ſubject by thoſe celebrated writers, Ray and Linnaeus. In the preface we are preſented with an explanation of the terms uſed in ornithology, to which are ſubjoined ſome obſervations on the flight, nuptials, nidification, and eggs of birds.

After this preface, we are preſented with a table of Mr Pennant's arrangement. To his own orders and genera are annexed the correſpondent ones in the Syſtema Naturae of Linnaeus.

He follows Ray in claſſing all birds under the two great diviſions of Land and Water-fowl.

In his ſubdiviſion of theſe claſſes into orders, he pretty nearly follows Linnaeus. The diviſion of land-birds comprehends ſix orders; four of which are taken from Linnaeus, two are new orders. Theſe are the Columbine, comprehending one genus, taken from the Paſſeres of Linnaeus; and the Struthious, comprehending two genera; the one taken from the Gallinae, the other from the Grallae of Linnaeus. Of the water-birds, he forms three orders. 1. The Cloven-footed, which, except the Pratincole, all belong to the Grallae of Linnaeus. 2. Thoſe with pinnated feet, taken from the Anſeres and Grallae. 3. The Web-footed, taken from the ſame orders.

Each of the nine orders comprehended under the two general diviſions, is next conſidered ſeparately. In doing this, he does not give any character of the order, but proceeds immediately to treat of the genera which it contains. In conſidering each genus, he has followed pretty nearly the ſame plan. Firſt, he gives the character of the genus, then quotes ſome ſtandard plate in which a good example of it may be found; and, in general, concludes with a ſhort hiſtory of it; mentioning, at the ſame time, the correſpondent genus in Linnaeus, Ray, and Briſſon; together with the number of ſpecies it contains. His characters of genera are, for the moſt part, taken from Linnaeus. On ſome occaſions, however, he differs from him; but, where he has done ſo, reaſons are aſſigned for it in the preface. Theſe reaſons, while they appear ſatisfactory, at the ſame time, ſhew the great deference which our author entertains for the opinion of the Swediſh naturaliſt.

SECT. II.

Medical Obſervations.

* * *

I.

A Caſe of Epilepſy, with an Account of the Appearances upon Diſſection; by Dr Daniel de la Roche *Phyſician at Geneva; communicated to* Dr Cullen.

A Girl, when about eight years of age, was ſeized with epilepſy. The fits ſucceeded each other at intervals of three, ſix, or eight weeks. After it had continued in this way for a conſiderable time; ſhe was attacked with a putrid fever, from which her life was thought to be in imminent danger. During the continuance of the fever ſhe had no epilepſy; nor did any fit of it return for twenty-two months after her recovery from the fever. But, at the end of that time, ſhe was ſeized with a long and very ſevere one. Fourteen months after, ſhe was attacked with a ſecond. Theſe were ſucceeded by others recurring at intervals, gradually becoming ſhorter. Laſt ſummer, I was called to attend her. The fits then ſucceeded each other at intervals of about ſix weeks. The convulſive motions during the fit had always affected the right arm more than any other part of the body. About two years before I ſaw her, it began to be weakened, and at laſt ſhe loſt entirely the power of it. To the feel, it was conſiderably colder than the left. I attributed this paralytic affection to the atonia which the convulſions had left behind them. I thought, therefore, that, if the primary diſeaſe could be removed, this palſy might eaſily be cured by means of tonics and ſtimulants.

Many phyſicians had been conſulted on this caſe, and they differed much in their opinions with regard to its cauſe. Some of them aſcribed it to a diſorder in the hypogaſtric region, others to worms, and a third ſet to ſome obſtruction. I gave it as my opinion, that the ſeat of the diſeaſe was in the head, and that the remedies were to be directed there. Accordingly, I ordered a bliſter to be applied to the back part of the head and neck. This was done at the ſpace of five weeks from the time at which ſhe had been attacked with the preceeding fit. It ſeemed to have ſome effect, as the next fit did not recur till ſeventeen days after it had been applied; and was at the ſame time leſs ſevere than the preceeding one. I ordered her nothing for three weeks after this. Then, however, I applied another bliſter, with half only of the uſual proportion of cantharides. I ordered, that this bliſter ſhould be ſo large as to cover the whole head, and that it ſhould be kept open for three or four days. This was accordingly done, and it diſcharged plentifully. A few days after it was healed, I applied another bliſter to the ſame part, which was managed in the ſame manner with the preceeding one. This method I continued for more than ſix weeks. I then determined to abſtain from bliſtering for ſome time. But, about ten days after the healing of the laſt bliſter, and, after an interval of eleven weeks from the time of the preceeding fit, ſhe was ſeized with one which ended in death.

Upon diſſection, I found about twelve ounces of water in her head; part of which was contained in the ventricles of the brain, and the reſt in bags, formed by a lengthening of the anterior ventricles. Theſe bags reached the dura mater, with which they were in contact about an inch above the frontal ſinus. Every other part of the body was found perfectly in its natural ſtate. It may be remarked that this hydrocephalus was attended with none of thoſe ſymptoms ſo accurately enumerated by Dr White. This patient was neither affected with headach, vomiting, nor ſlow fever. It may, I think, be a queſtion, Whether the hydrocephalus was the cauſe of the epileptic fits, or merely a concomitant effect? I am inclined to the latter opinion; but I think it probable, that the compreſſion it occaſioned produced the palſy in the arm.

II.

The Caſe of a Man affected with an obſtinate Epilepſy, conſiderably relieved by the Uſe of the Flowers of Zinc, by Mr Benjamin Bell Surgeon in Edinburgh.

A man aged 35, about ten years ago, was ſeized with epileptic fits, which have continued to recur from time to time ever ſince. For ſome time after the firſt attack, they did not recur oftener than once a month. By degrees, however, they became more frequent; of late, they have ſeldom left him an interval of twenty-four hours; and, in general, in that ſpace of time, he has ſix, eight, ten, or even twelve attacks. During the fit, he is altogether inſenſible, is convulſed, and foams at the mouth; and, upon recovering from it, he is ſo much enfeebled, that he can hardly ſpeak. For ſome time, his fits were not very ſevere; but as they became more frequent, ſo they became more violent and of longer duration. At length, his memory and judgement were ſo much impaired, that he could ſcarce anſwer any one queſtion diſtinctly, which ſtill continues to be the caſe. About four years ago, as his fits were becoming more ſevere, he was ſeized with violent rheumatic pains in his limbs. Theſe after ſome time went off; but they left ſuch weakneſs and feebleneſs of his under extremities, that, for theſe three years paſt, he has not been able to get out of bed, without the aſſiſtance of two or three people. His appetite is good, belly regular, and pulſe ſeventy-two.

In this ſituation, I found him, when I firſt viſited him on the 22d of October 1772. He had before that uſed a great variety of medicines, without any effect. I therefore determined to make a trial of the flowers of zinc, which I ordered in the following form. ℞ *Flor. zinci* gr. xxiv. *Extract. Gentian.* ʒ i, *M. f. mas. et divid. in* pil. xxiv. cap. i. *m. v.* He continued to take two pills a-day, till the 1ſt of November. As they produced no ſenſible operation, and as his fits continued as violent and as frequent as formerly, I ordered that his doſe ſhould be doubled. At this doſe, he continued till the 12th; his fits, though no leſs violent, were then leſs frequent than before. I deſired, therefore, that he might take three pills in the morning, and as many in the evening. On the 20th, his fits continuing ſtill leſs frequent, I augmented his doſe to four pills. I did not ſee him again till the 29th, during that time, his pills, by accident, had been intermitted for two days, upon which his fits became evidently both more frequent and more violent, and continued ſo for ſome days after. As he had never yet found any inconvenience from the zinc, I now ordered the doſe to be encreaſed to five pills, and repeated thrice every day. On the 12th of December, I found that he been entirely free from fits ſince the ſecond day after he began this large doſe. As he found no inconvenience from the zinc, I encreaſed the doſe to ſix pills. On the 18th, he ſtill continued free from any fit, found himſelf much more clear and diſtinct than formerly, and was able to give tolerable anſwers to any queſtions that were put to him. On the 22d, he ſtill continued much better, and was able to remember every thing that happened to him. He had likewiſe, in a conſiderable degree, recovered the uſe of his limbs, in ſo much, that he was able to get out of bed with the aſſiſtance of one perſon only; whereas, formerly, two or three had been required. I then ordered his doſe to be augmented ed to ſeven pills thrice a-day. On the night of December 26th, he had one fit during his ſleep; but it was ſo ſlight, that, if he had not been informed of it by thoſe who attended him, he ſhould not have known it. I then ordered his doſe to be augmented to eight pills. Notwithſtanding this, he had one fit during the night of the 27th, and two during that of the 28th. None of them, however, were ſevere, and his intellectual faculties ſtill continued to alter for the better. On the nights of the 29th, 30th, and 31ſt, he ſtill continued to have one or more fits. On the 1ſt of January 1773, therefore, I ordered his doſe to be augmented to ten pills. After this, his fits ſtopt again. On the 20th, I ordered his doſe to be augmented to twelve pills, and he continued free from fits till the evening of the 24th, when he had a pretty ſevere one. For the five following days, he had two or three every night; but his memory and judgement remained unaffected by them. I ordered him ſtill to continue with the former doſe of the zinc. From the 29th of January to the 12th of February he had no fits. I then ordered his medicine to be diſcontinued, after a trial of upwards of four months. He remained free from fits, till the 18th, on the night of which he had two pretty ſevere ones. After this, he had two or three every night till the 23d. Since that, he has had none, and continues this day, March 2. in every reſpect much better than before he began the zinc. I now intend intermitting the uſe of this remedy, till I ſhall be able to judge, how far the relief he has obtained may be reckoned permanent.

III.

An Account of the Appearances upon the Diſſection of a Man, who died of a Hydrothorax, in the Royal Infirmary, at Edinburgh, from the Journal of that Hoſpital.

A Man about ſixty years of age, was admitted into the Royal Infirmary, on the 28th of December 1772, with evident ſymptoms of Hydrothorax, and conſiderable anaſarcous ſwelling of his legs. Several remedies were tried in vain. His pulſe became gradually ſmall, weak, and quick; his ſtomach unable to bear either medicines or food; and he died about the twelfth day after his admiſſion. The appearances upon diſſection were as follows.

Upon removing the integuments of the abdomen, no water was found in the cavity, but ſome of the viſcera were a good deal diſplaced. The liver deſcended much lower than is common, and its attachment to the diaphragm could be diſtinctly perceived below the cartilages of the ribs. The diaphragm itſelf hung down on the right ſide in the form of a bag, and evidently appeared to contain a fluid. The other viſcera were diſplaced by this deſcent of the liver; the ſtomach particularly was puſhed greatly towards the left ſide; and its oblique direction ſo much encreaſed, that the pylorus lay almoſt oppoſite to the navel. Some ſmall glands upon the myſentery were found ſchirrous; the other viſcera of the abdomen were in a ſound ſtate.

Upon laying open the thorax, the lungs were found in a natural ſtate on the left ſide, and there was no water in the cavity. But the lungs of the right ſide were diminiſhed to a very ſmall ſize, and the cavity was filled with a dirty whitiſh coloured liquor, to the quantity of ſome quarts. The pleura of the right ſide was much thickened. The pericardium was unuſually large, and contained a conſiderable quantity of a fluid, not of the natural appearance of the liquor pericardii; but of the ſame dirty whitiſh colour with the water in the cavity of the thorax.

SECT. III.

Medical News.

✣ ✣ ✣

ON the tenth of February laſt, died at Edinburgh, Dr John Gregory. He was at that time Profeſſor of the practice of Phyſic in the univerſity of Edinburgh, fellow of the royal college of phyſicians there, fellow of the royal ſociety at London, and firſt phyſician to his Majeſty for Scotland.

Dr Gregory was born in the end of May 1725. His father was profeſſor of medicine in King's college Aberdeen; and his grandfather was profeſſor of mathematics, firſt at St. Andrews, and afterwards at Edinburgh. Thus Dr Gregory was the third profeſſor of his family in a lineal deſcent. But it deſerves to be remarked as a circumſtance ſtill more extraordinary, that, from his great grandfather, David Gregory, Eſquire, of Kinairdy, in Aberdeen-ſhire, he was the fifteenth deſcendant, who had held a profeſſorſhip in a Britiſh univerſity.

Dr Gregory began the ſtudy of medicine at Aberdeen, which he afterwards proſecuted, firſt at Edinburgh, then at Leyden, and laſtly at Paris. In the twentieth year of his age, he was elected profeſſor of philoſophy in King's college Aberdeen, and had, at the ſame time, the degree of doctor of medicine conferred upon him. In the year 1756, upon the death of his brother Dr James Gregory, who had ſucceeded his father as profeſſor of medicine, he was elected to that chair. But, about the beginning of the year 1765, he left Aberdeen, and came to Edinburgh. Soon after this, he was appointed profeſſor of the practice of medicine in the univerſity there, in the room of Dr Rutherford, who reſigned n his favour. The year following, upon the death of Dr White, he was nominated firſt phyſician to his majeſty for Scotland. Thus, at the time of his death, beſides very extenſive practice, he enjoyed the higheſt and moſt important offices in the way of his profeſſion, which could be obtained in his native country.

Theſe diſtinguiſhing honours were univerſally allowed to be the juſt reward of ſingular merit. Of this the writings which he publiſhed will bear ample teſtimony to future ages. His firſt publication, which is entitled, *A comparative View of the State and Faculties of Man with thoſe of the Animal World*, made its appearance in the year 1765. This production, while it demonſtrates the author to have been a philoſopher, whoſe reflections were juſt and original, at the ſame time, diſplays a liberality of ſentiment ſeldom to be equalled. Such was the avidity with which it was read, that, in the ſpace of two years, it went through four editions; and, while it was peruſed by all, with peculiar pleaſure, it was honoured by thoſe diſtinguiſhed for taſte and literature with high approbation.

In the year 1770, a ſecond work of Dr Gregory's made its appearance; but without his conſent, and even contrary to his inclination. His preliminary lectures on the practice of phyſic were heard by his pupils with univerſal ſatisfaction. From a copy of theſe lectures taken in ſhort hand, there was publiſhed a book entitled, *Obſervations on the Duties and Offices of a Phyſician, and on the Method*

Method of proſecuting Inquiries in philoſophy. Although theſe lectures were not intended for the preſs, and did not paſs thro' the finiſhing hand of the author before they were preſented to the public; yet, ſuch was the matter they contained, that, had they appeared even in a much worſe dreſs, they could have done him no diſcredit. In theſe lectures, by the moſt forcible arguments, he laboured to convince his pupils, that a phyſician, who ſtudies the principles of his profeſſion, who has an extenſive acquaintance with every branch of natural knowledge, and who properly applies his knowledge, muſt have an infinite advantage, as a practitioner, over one who is ignorant of the theory of medicine, and of every ſcience connected with it. He endeavoured to perſuade them, that genius and ſenſe, which indeed are the peculiar gifts of heaven, are yet capable of high improvement; and that, without improvement, they can be but of little account, either to the public, or to the individual. In ſhort, no argument was omitted, which could prompt them to ſtudy medicine with attention and ardour, and afterwards to practiſe it with prudence and humanity.

Dr Gregory, however, was diſſatisfied with the dreſs in which this work appeared. Soon after, therefore, he publiſhed an edition of it himſelf, in which his former ſentiments are ſet off with all the advantages which can be derived from a correct and elegant ſtile.

His laſt publication, *Elements of the Practice of Phyſic*, was intended as a ſyllabus to his lectures; and in it he meant to have comprehended all the diſeaſes of which he uſually treated. But, not having leiſure to finiſh the whole, he was obliged to ſtop at the end of thoſe diſeaſes commonly reckoned febrile. Although this work appears with all thoſe diſadvantages under which every text muſt labour; yet it ſufficiently ſhews how the author thought and acted in the exerciſe of his profeſſion.

Had Dr Gregory lived to a more advanced age, the world would probably have been favoured with other works no leſs honourable to the author than beneficial to mankind. But his extenſive practice, and his zeal in the diſcharge of his duty as a profeſſor, occupied the greateſt part of his time.

To pretend to enumerate the many advantages which his pupils derived from him in the capacity of a teacher, would exceed the bounds of our publication. Let it ſuffice to ſay, that, from the extent of his views, from the juſtice and importance of his obſervations, and from the force and accuracy of his reaſoning, every hearer obtained the moſt thorough conviction of his abilities, and retired from academical labours both pleaſed and inſtructed.

To conclude, Dr Gregory was not more eminent as a phyſician, than he was amiable and reſpectable as a man. With the mathematical genius of his family, he united a correct taſte for the fine arts, and a high reliſh for every ſocial virtue. He poſſeſſed a clear and vigorous underſtanding; a chaſte and lively imagination; an affectionate and feeling heart. And, while he was diſtinguiſhed for paternal and conjugal attachment, he was a conſtant friend to poverty and diſtreſs; an unwearied patron of ſcience and of virtue.

On Wedneſday the 24th of February Dr William Cullen was unanimouſly elected profeſſor of the practice of medicine, in the univerſity of Edinburgh, in the room of Dr Gregory; and, ſoon after, he was appointed by his Majeſty to ſucceed the ſame gentleman as firſt King's phyſician for Scotland.

Mr Hamilton M'Lure and Mr Thomas Hay were lately admitted members of the college of ſurgeons at Edinburgh.

Mr Portal, at Paris, in a letter to Dr Hamilton phyſician in Edinburgh, mentions, that of late he has frequently employed an infuſion of Marrubium album, with great ſucceſs, againſt obſtructions of the liver.

The following uncommon accident lately happened at Edinburgh: A gentleman about fifty years of age was thrown down with conſiderable force upon the floor of his own bed-chamber. He pitched upon his ſhoulders, and being remarkably round ſhouldered, his head was jerked ſuddenly backwards, but did not touch the floor. He was inſtantly ſeized with a general paralyſis over his whole body, upon which Mr Alexander Wood was immediately ſent for, and Dr Monro was ſoon afterwards called in. They found him with all his ſenſes, except that of feeling, perfectly entire; but he was totally deprived of the power of motion; and he had little ſenſation upon any part of the trunk of his body being touched. His voice was in no degree affected; reſpiration went on as uſual; and he complained only of a ſlight pain in the back part of his neck. In ſpite of every remedy which could be employed, his paralytic ſymptoms continued, a lethargy ſuperveened, and he died within a few minutes of twenty-four hours from the time of his fall.

Upon examination of the body after death, the third vertebra of his neck was found fractured; but the ſpinal marrow did not ſeem to be hurt, and its membranes were not in any degree torn. Every other part which was examined was perfectly ſound.

SECT. IV.

A Liſt of New Books.

LEctures on the Materia Medica, as delivered by William Cullen, M. D. profeſſor of medicine in the univerſity of Edinburgh; now publiſhed by permiſſion of the author, and with many corrections from the collation of different manuſcripts, by the editors, 4to, London.

Conſiderations on the uſe and abuſe of antimonial medicines in fevers, and other diſorders, 8vo, London.

En eſſay on the nature and circulation of the blood, in two parts. 1. On its nature and uſes. 2. On its circulation. By Marmaduke Berdoe, M. D. 8vo, London.

Experiments and obſervations on the preparation, calcination, and medicinal uſes of Magneſia Alba, &c. By Thomas Henry, 8vo, London.

Eſſays medical and experimental. Vol. 2. By Thomas Percival, M. D. F. R. S. and S. A. 8vo, London.

Experiments on the human bile, and reflections on the biliary ſecretion, with an introductory eſſay. By James Maclurg, M. D. 8vo, London.

Notes on Mr William Bromfield's two volumes of chirurgical obſervations and caſes, with an appendix addreſſed to Dr Lawrence. By D. A. S. M. D, and profeſſor of ſurgery, 8vo, London.

A diſſertation on conſumptions, with a rational and practical method of cure propoſed, addreſſed to all invalids, as well as young phyſicians, ſurgeons, and apothecaries, 8vo, London.

Hiſtoire univerſelle et raiſonnée des vegetaux prèſentés ſous tous les aſpects poſſibles. Par M, P. I. Buchoz. Doct. en med. et phil. Botaniſte de Mgr. le Comte de Provence.

Digreſſions academiques, ou eſſais ſur quelques ſujets de phyſique, de chymie, et d'hiſtoire naturelle. Par M. Guyton de Morveau Avocat-General au parlement de Dijon, &c. 12mo, Dijon.

Traité analytique des eaux minerales en general, de leur proprietés, et de leur uſage dans les maladies, fait par ordre du gouvernement. Par M. Raulin, M. D. aggrègé honoraire au college royal des medecins de Nancy, &c. 12mo, Paris.

Danielis Wilhelmi Trilleri Opuſcula medica ac medico-phyſiologica. Tom. 3tius, Francfort.

A practical treatiſe on diſeaſes of the breaſts of women. By W. Rowley, ſurgeon and man-midwife, and ſurgeon to St John's Hoſpital, 8vo, London.

Doubts concerning the inverſion of objects on the Retina. By Marmaduke Berdoe, M. D. 8vo, London.

Genera of birds. By Thomas Pennant, Eſq; 8vo, Edinburgh.

The London practice of phyſic, the 2d edition, with additions, 8vo, London.

A new practical eſſay on Cancers. By J. Burrows, M. D. 8vo, London.

Obſervations on the diſeaſes in long voyages to hot countries; and, particularly, on thoſe which prevail in the Eaſt Indies. By John Clark, formerly ſurgeon of the Talbot, Eaſt Indiaman, 8vo. London.

A courſe of phyſiology, divided into twenty lectures, formerly given by the late learned Doctor Henry Pemberton, profeſſor of phyſic at Greſham College, fellow of the royal ſociety, and of that at Berlin; now firſt publiſhed from the author's manuſcripts, 8vo, London.

A philoſophical eſſay on man. Being an attempt to inveſtigate the principles and laws of the reciprocal influence of the ſoul on the body. 2 vols. 8vo, London.

Serious conſiderations on ſome remarkable paſſages in a work lately publiſhed by Mr B——, and preſented to his Majeſty, 8vo, London.

Memoires de l' academie royale des ſciences de Stockholm, concernant l' hiſtoire naturelle, la medecine, l'anatomie, la chymie, l' èconomie, les arts, &c. Traduits par M. de Keralio, Chevalier de l'ordre royal et militaire de St Louis, &c. 4to, Paris.

Antiquitates medicae ſelectae, auctore M. Walch ſenior, 8vo, Paris.

Traite d'Odontalgie, ou l'on prèſente un ſyſteme nouveau ſur l'origine et la formation des dents, une deſcription des differentes maladies qui affectent la bouche, et les moyens de les guerir. Par M. Auzebi chirurgien dentiſte à Lyon, 12mo, Lyon.

Introduction á l'étude des corps naturels tirés du regne vegetal, par M. Bucquet Docteur-regent de la faculté de medecine de Paris, 2 vols, 12mo, Paris.

Diſſertazione ſul l'aneuriſmo del poplite, par M. Maſſotti cirurgico del Grande Duca di Toſcano, 8vo, Florence.

Giornale di Medicina. Tom. 10. 8vo, Veniſe.

Steins anleitung zur Geburthſhulf, &c. i. e. A practical introduction to the art of midwifery in praeternatural and difficult labours. By Mr G. G. Stein. Caſſel.

Joannis Jacobi Reichard, Flora Francofurtana, enumerans ſtirpes circa Francofurtum naſcentes, ſecundum methodum ſexualem diſpoſitas—— Francfort ſur le Mein.

J. Mich. Aug. Jagemann in acad. Erford. phil. prof. liber epidemicorum, de acuta paſſim epidemica febre circa annos 1771 et 1772—— Erford.

Reflections ſur le triſte ſort des perſonnes, qui ſous une apparence de mort ont été enterrées vivantes, et ſur les moyens qu' on doit mettre en uſage pour prevenir une telle meſepriſe, 8vo, à la Haye.

Novi commentarii academiae ſcientiarum Imperialis Petropolitanae, Tom. 15. pro anno 1770, 4to, Petropoli.

Obſervata quaedam medica, cum figuris aeneis, auctore M. J. Marx, M. D. Berlin.

Auzuge aus den neuſten diſſertationen. i. e. Extracts from new theſes and diſſertations on natural hiſtory and medicine. By Mr E. G. Baldinger. Berlin.

Gedaken und Mahrenhumg, &c. i. e. Thoughts and obſervations on the Tarantula for deſtroying the prejudices entertained with regard to its bite. By Mr Buſching. Berlin.

Recherches ſur les modifications de l'atmoſphere, contenant l' hiſtoire critique du barometre et thermometre; un traité ſur la conſtruction de ces inſtrumens, et des experiences relatives a leurs uſages. Par. M. de Luc, citoyen de Geneve, 2. Tom. 4to, á Genêve.

The END.

CONTENTS.

Gregory's Elements of the Practice of Phyſic 115
Hill's Caſes in ſurgery 126
White on the Diſeaſes of Lying-in Women 135
Maclurg upon the Human Bile 150
Beccarius de Lacte 161
Menghinus de Aquarum vi in Calculis ſolvendis 165
Plancus de Urina Veneta 168
Galeatius de Cortice Peruviano 172
Tacconius de Rachitide 178
Gaber de Humoribus Animalibus 184
Hanly's Account of a Steatomatous Tumour 191
Crell on Putrefaction 194
Pennant's Genera of Birds 197
Medical Obſervations 200
Medical News 210
Liſt of new Books 218

MEDICAL

AND

PHILOSOPHICAL

COMMENTARIES.

By a SOCIETY in EDINBURGH.

> So great are the difficulties of tracing out the hidden cauſes of the evils to which this frame of ours is ſubject, that the moſt candid of the profeſſion have ever allowed and lamented how unavoidably they are in the dark. STERNE.

VOLUME FIRST.

PART III.

LONDON
Printed for J. MURRAY, No. 32. Fleet-ſtreet;
KINCAID & CREECH, and W. DRUMMOND, *Edinburgh*;
and T. EWING, Capel-ſtreet, *Dublin*.

M,DCC,LXXIII.

MEDICAL

COMMENTARIES.

SECT. I.

An Account of Books.

I.

Practical Obſervations on the Child-bed Fever: Alſo on the Nature and Treatment of Uterine Hæmorrhages, Convulſions, and ſuch other acute Diſeaſes as are moſt fatal to Women during the ſtate of Pregnancy. By John Leake, M. D. *Member of the College of Phyſicians, London, and Phyſician to the Weſtminſter Lying-in-Hoſpital.* 8*vo*, London.

THE doctrines here delivered, concerning the pathology and cure of the puerperal fever are very ſimilar to thoſe lately publiſhed by Dr Hulme in his treatiſe on the ſame ſubject. As this circumſtance might give riſe to a queſtion with regard to the honour of the diſcovery, the author,

thor, in order to aſſert his claim of priority, informs us in the introduction, that near three years ago, in a courſe of publick lectures, he had taught thoſe opinions which are contained in the work now before us. In proof of this aſſertion, he appeals to a number of his pupils, a liſt of whoſe names he has annexed in a poſtſcript.

The remaining part of the introduction conſiſts of general obſervations on the cauſes of that diverſity in opinion which obtains with regard to the origin and cure of diſeaſes, and on the moſt proper method of conducting medical enquiries, ſo as to contribute, in the moſt effectual manner, to advance the ſcience, and to promote the real intereſts of the profeſſion. What our author points out as the great ſources of error and diſſenſion in medicine, are thoſe difficulties which muſt neceſſarily attend all inquiries with regard to ſuch ſubjects as do not fall under the immediate cognizance of our external ſenſes, and a prepoſterous attachment to ſyſtem and authority, together with an incorrigible propenſity to indulge in conjecture and fanciful hypotheſis. To avoid theſe, he earneſtly recommends the moſt attentive regard to perſonal obſervation and experience in every particular relative to the hiſtory of diſeaſes.

The author, in his firſt ſection, preſents us with a hiſtory of the puerperal fever. But, being induced to think, from the known influence of certain conſtitutions of the air on diſeaſes in general, and from repeated obſervations with regard to puerperal fevers in particular, that women are moſt ſubject to them during a particular temperature of the air, to this hiſtory he premiſes a general account of the weather. After deſcribing the diſeaſe as it uſually appears, he proceeds to conſider the different opinions of medical writers with regard to its pathology. Phyſicians, he tells us, have in general aſcribed this fever either to an obſtruction or critical metaſtaſis of the milk or lochial diſcharge, or to an inflammation of the uterus. Van Swieten and Levret are cited as the chief ſupporters of the former opinions, as Hoffman is of the latter. To thoſe who aſſign a reflux of the milk as the cauſe of the child-bed fever, Dr Leake oppoſes the ſudden production of the diſeaſe, and the almoſt inſtantaneous proſtration of ſtrength with which it is often attended. Theſe circumſtances, he thinks, can with no appearance of probability be referred to the abſorption of a fluid ſo mild and balſamic as the milk. He allows indeed that this fluid may be ſo vitiated as to excite diſorder in the ſyſtem. But this, he contends, happens only in conſequence of long ſtagnation; and that, even then, it is in general ſoon carried off by diarrhoea or ſome other critical evacuation, or that it will produce an abſceſs in the breaſt: In both which caſes the diſorder is eſſentially different from the puerperal fever. He farther urges, that ſuckling after delivery has not been found of ſervice in preventing the attack of this fever; that, in many caſes, he has obſerved a plentiful ſecretion of milk till very late in the diſeaſe; that, in ſome few, he has ſeen the milk in ſmall quantity, or even totally deficient, without any ſuch fever; that, in general, it comes on before there be any want of milk; and that it does not happen to women when thy wean their children, which ſhould be the caſe, if it were owing to a tranſlation of the milk. A matter reſembling milk has indeed been found on the ſurface of the inteſtines in ſome who died of this fever. This, however, Dr. Leake maintains, is entirely produced by the ſuppuration of the o-

men-omentum; and he alledges, that the liquor called *ſerum lactis*, which is found in the cavity of the abdomen, is either a tranſudation of thin pus from the inflamed viſcera, or a collection of putrid lymph.

Having thus rejected the opinion of thoſe who conſider an obſtruction of the milk as the immediate cauſe of the puerperal fever, the auther next endeavours to ſhow, that the ſuppoſition of its depending on an obſtruction of the lochial diſcharge is equally exceptionable. This diſcharge, he obſerves, although formerly concieved to be highly malignant, is now well known to be in every reſpect ſimilar to what follows from a rupture of veſſels in any other part of the body. At firſt it is ſanguineous; by degrees it becomes more dilute and ſerous; about the third or fourth day it is ſomewhat purulent; and ſoon after it totally ceaſes. Since in this there is nothing but what is in common to the digeſtion of every freſh wound, the author thinks it inadequate to the production of puerperal fever. And in this opinion he is confirmed from never having obſerved any bad conſequences attending the greateſt varieties of this diſcharge in point of quantity.

Laſtly, Dr Leake contends, in oppoſition to Hoffman, that the child-bed fever is a diſeaſe eſſentially different from an inflammation of the uterus, the latter being generally attended with headach and delirium, and univerſally with an intenſe pain and heat in the uterine region; while, in the former, no ſuch ſymptoms uſually appear.

The opinions moſt generally received concerning the child-bed fever appearing thus embarraſſed with inſuperable difficulties, the author proceeds, in the ſecond ſection, to lay before us his own theory of this diſeaſe: And to this he ſubjoins an account of the moſt ſucceſsful method of cure. The proximate cauſe of this diſeaſe he imagines to be an inflammation of the omentum and inteſtines. The ſudden change induced by delivery, in the circulatory ſyſtem, he conſiders as a circumſtance which neceſſarily prediſpoſes to abdominal inflammations; and the lax texture of the omentum and inteſtines he thinks ſufficiently accounts for their being moſt commonly affected. Beſides this, the effects of labour-pains, and an unhealthy conſtitution of the atmoſphere concurring with the mobility of the ſyſtem after delivery, and the other prediſpoſing cauſes already mentioned, aſſiſt in kindling up this fever. Thus, according to our author, we are to look upon this fever as a diſorder purely inflammatory, notwithſtanding the putrid ſymptoms which ſometimes ſupervene. Theſe, he contends, are owing to a morbid tranſlation of matter from the ſuppurated omentum, and therefore are to be regarded merely as conſequences of the original affection.

We are next preſented with ſome practical inferences reſpecting the cure of this diſeaſe, drawn from the preceeding pathological reaſoning. He particularly inſiſts upon the propriety of bleeding. Objections indeed, he obſerves, are commonly made to this evacuation. Theſe, however, he diſregards as groundleſs prejudices, which are contradicted both by reaſoning and experience. He maintains, that early and copious bleeding, regulated by the ſtate of the pulſe, and the general habit of the patient, is the only remedy which can give a chance for life.

Beſides bleeding in the beginning of this diſeaſe, the indications which he propoſes are, to diminiſh the violence and duration of the cold fit; to evacuate and correct redundant and corrupted bile; to reſtrain exceſſive diarrhoea; and, laſtly, in the end of the diſeaſe, to oppoſe the tendency to putrefaction. For the firſt of theſe purpoſes he adviſes the plentiful uſe of warm mild diluents, and the application of bladders half full of warm water to the axillae and ſoles of the feet. Warm bathing, he obſerves, did not anſwer his expectation in promoting this intention of cure. He is inclined, however, to think favourably of it, and recommends it to farther trial, under proper regulations.

He adviſes, that the bile, when redundant, ſhould be evacuated by gentle emetics and laxatives; and that, when corrupted, it ſhould be corrected by aceſcent vegetable juices, and ſaline draughts. But the inteſtines, he obſerves, are often ſo extremely irritable, that theſe remedies prove much too ſtimulant and purgative, even when they are exhibited in ſmall doſes, and conjoind with vegetable mucilages.

To check immoderate diarrhoea, which the author thinks is ſeldom critical, although he allows that it often gives relief even in the beginning of the diſeaſe, he directs that recourſe ſhould be had to emollient glyſters, gentle diaphoretics, or even to opiates and mild aſtringents, eſpecially if the patient ſeems to ſink under the diſcharge.

With a view of oppoſing the tendency to putrefaction, the great remedy to be depended upon is Peruvian bark. This, as the progreſs of the diſeaſe is ſo very rapid, muſt be had recourſe to more early than in other fevers, and even before there be any diſtinct intermiſſion. He cloſes this ſection with obſerving, that, notwithſtanding the prejudices againſt bliſters with lying-in-women, from the danger of their exciting ſtrangury, yet that the great relief which they afford in other topical inflammations ſufficiently juſtifies the practice of applying them, immediately after bleeding, in the puerperal fever. But ſuppoſing the objection to hold good, he is of opinion, that ſinapiſms, which are not liable to produce the ſame inconvenience, may be freely uſed. He allows, however, that he has not yet ſeen them ſufficiently tried, to be able to recommend them from perſonal experience.

In the third ſection, the author treats of the prevention of the puerperal fever. As the moſt effectual means for this purpoſe he directs, 1*ſt*, Before delivery, the uſe of ſuch medicines as tend to ſtrengthen and invigorate the conſtitution, ſuch as the Peruvian bark, chalybeate waters, and, in caſes where the nervous ſyſtem is very irritable, the prudent uſe of opium. 2*dly*, After delivery, the avoiding all occaſional cauſes, ſuch as violent emotions of the mind, imprudent expoſure to cold, errors in diet, binding the body too tight, and, above all, the utmoſt attention to cleanlineſs and ventilation.

We are preſented, in the fourth ſection, with a particular detail of fourteen caſes of the puerperal fever which tend to illuſtrate the doctrine delivered in the former part of the work. In four of theſe caſes, the author had an opportunity of examining the bodies after death; and in all of them the appearances of inflammation, ſuppuration, or grangrene of the omentum, were very evident. The ſame appearances were ſometimes ſeen on the ſurface of the inteſtines, which the author aſcribes to the circumſtance of continuity to the part primarily affected. The uterus was in general found properly contracted, and apparently in a ſound ſtate.

Having thus finiſhed the account of the puerperal fever, the author proceeds, in the fifth ſection, to conſider the nature, cauſe, and treatment of uterine haemorrhages. Floodings before delivery he aſcribes to a partial ſeparation of the placenta from the internal ſurface of the uterus; and, this, he tells us, may be occaſioned by every cauſe encreaſing the momentum of the circulation. Floodings after delivery he conſiders as depending on the imperfect contraction of the uterus, from a languor and want of tone in the ſyſtem.

With regard to the treatment of theſe complaints, he invieghs againſt the vulgar practice of giving heating cordials, in order to revive the patient, as being highly pernicious and deſtructive. When the patient is ſo much exhauſted by the diſcharge as to be in danger of ſinking under it, if not properly ſupported, he recommends the uſe of thoſe things which nouriſh without ſtimulating, ſuch as animal broths and jellies. Bleeding alſo, he apprehends, has been too indiſcriminately directed in flooding caſes. This evacuation, he thinks, can ſeldom be proper, unleſs in the beginning of ſuch floodings as happen before delivery, from plethora, inflammatory fever, external violence, or ſudden emotions of the mind. He puts little dependence on ſtyptic medicines as reſtraining uterine haemorrhages. He is inclined rather, with Hoffman, to believe that, by increaſing the action of the vaſcular ſyſtem on the contained fluids, they are more apt to augment than to diminiſh the diſcharge. Much more advantage may, in his opinion, be expected from ſuch medicines as leſſen the force of circulation and derive to the ſurface. Of this kind are antimonials exhibited in ſmall nauſeating doſes, ſaline draughts with nitre, and the ſal ſedativus Hombergeri.

With regard to opiates; as the author imagines that their effects in accelerating the motion of the blood are much akin to thoſe of volatile medicines and ſtrong cordials, he in general condemns them as unſafe, and aſſerts that he has often ſeen internal haemorrhages increaſed by their exhibition. He diſſuades us likewiſe againſt the uſe of ligatures, becauſe, by retarding the circulation in the extreme arteries and veins, they muſt neceſſarily increaſe its momentum in the hypogaſtric and ſpermatic arteries, which ſupply the uterus; the conſequence of which will be an aggravation of the evil.

The great remedy upon which Dr Leake relies, as being of all others the moſt effectual in flooding caſes, is the application of cold. Heat, he obſerves, rarifies the blood and quickens the circulation; while the effects of cold are diametrically oppoſite. Accordingly, the topical application of cold has been found to occaſion an immediate ſtoppage of the menſtrual flux, in oppoſition to the powerful efforts of nature. Upon theſe grounds the author founds his reaſoning with regard to the propriety of having recourſe to the application of cold for reſtraining uterine haemorrhages; ſince it acts equally in condenſing the fluids, as in conſtringing the ſolids, he thinks that the objection formerly made to the uſe of ſtyptics, from their diminiſhing the capacity of the veſſels, will not apply here: But, even if it ſhould, he inſiſts, that experience is ſo deciſive in favour of this practice, as to outweigh all theoretical reaſonings. In all caſes of flooding, therefore, whether before or after delivery, he ſtrenuouſly recommends the free admiſſion of cold air; the liberal uſe of cold drinks; the repeated application of compreſſes, dipt in cold vinegar, to the region of the uterus; and the immerſion of the feet in cold water.

In caſes of flooding before delivery, when all the methods hitherto mentioned have failed, and the patient appears to be ſinking under the diſcharge, the laſt remedy is to deliver her as ſoon as poſſible. And if, after delivery, the diſcharge continues profuſe, and reſiſts all other means, it may be neceſſary to throw up into the uterus ſtyptic injections, as the aqua aluminoſa Bateana, or a weak ſolution of colcothar vitrioli. In all flooding caſes, the moſt perfect compoſure of mind is conſtantly to be enjoined.

The author concludes this treatiſe with ſome obſervations on convulſions, and the acute diſeaſes which are moſt fatal to women during the ſtate of pregnancy. He adopts the common diviſion of convulſions into Idiopathic and Symptomatic; the firſt, when the ſenſorium commune is primarily affected; and the laſt, when it is ſo by the mediation only of the nerves, from a diſeaſe in ſome other part of the ſyſtem, as the ſtomach or uterus. Another diſtinction, which he inculcates as being of the utmoſt importance in practice, is, that the convulſions of pregnant women are ſometimes evidently connected with plethora, at other times with inanition. In the former of theſe caſes, which he looks upon as by much the leaſt formidable, a cure is to be attempted by early and copious bleeding; by diluents; by ſaline nitrous draughts; and by a very ſpare light diet.

In the latter, all evacuations are contra-indicated, and the cure entirely turns upon ſupporting the vis vitae. For this purpoſe, he recommends nouriſhing fluids given frequently in ſmall quantities; broth clyſters; and a decoction of bark with warm nervous cordials and opiates. When the circulation is very languid, he adviſes that bliſters and ſinapiſms ſhould be uſed; and that the extremities ſhould be rubbed with hot flannels, or immerſed in warm water.

The author next enumerates various remote cauſes of convulſions, to which, as they furniſh indications of cure, he calls the attention of the practitioner. Thus, when the diſeaſe is ſuddenly produced by terror, bleeding, opiates, and the warm bath are indicated. When it proceeds from errors in diet, emetics and laxatives are required, and, after their operation, an opiate. When it depends on a ſuppreſſion of urine, the bladder muſt be emptied by the catheter, or recourſe muſt be had to warm bathing, emulſions, and anodyne clyſters. When it follows from repelled cutaneous eruptions, the warm bath and gentle diaphoretics are requiſite. When it ariſes from worms, anthelmintics muſt be employed; with this view, Plenk's mercurial ſolution may, he tells us, be uſed with perfect ſafety.

The author obſerves, that, for the removal of convulſions with pregnant women, it may ſometimes be neceſſary to have recourſe to ſpeedy delivery. This, however, is a practice, which, he apprehends, has often been recurred to with too much precipitation; and in caſes too, where it muſt not only prove ineffectual, but even highly dangerous. To women who have been ſubject to convulſions during pregnancy, he recommends the uſe of bleeding, opiates, and other ſuitable remedies, ſome time before the approach of labour. To theſe obſervations, are annexed ſeven caſes of convulſions, occurring in pregnant women; in ſix of which, they were ſucceſsfully treated by the methods here propoſed.

This treatiſe is concluded with ſome remarks on pleuriſy, dyſentery, and ſmall-pox. As theſe diſeaſes have been very fully treated of by other writers, and, as the circumſtance of pregnancy does not materially influence the practice, they are here conſidered in a curſory manner: And the obſervations, although accurate and judicious, contain nothing peculiarly intereſting to ſuch as are already acquainted with the received notions concerning the diſeaſes in queſtion.

II.

Dn. D. Petri Jonae Bergii *Methodus cremorem Tartari ſolubilem reddendi. Vid. Nova Acta Phyſico-Medica Academiae Caeſareae Leopoldino Carolinae Naturae Curioſorum*, tom. quart. 4to, Norimbergae.

THE author ſets out with obſerving, that, although we ſeparate from the cream of tartar, the earth which ſeems capable of hindering its ſolution; yet it ſhews but a ſmall degree of ſolubility. For the purpoſe of diſſolving it in water, twelve times its weight is neceſſary, even when the menſtruum is warm; and twenty times its weight, if the menſtruum be cold. The importance of obtaining, with facility, in a ſtate of ſolution, a medicine ſo valuable, led him to attempt ſome experiments on this ſubject.

After trying ſeveral ſubſtances, he found nothing ſo effectual, in rendering cream of tartar readily ſoluble, as the addition of borax. And this, he obſerves, had before been ſuggeſted by the experiments of Lewis and Mayer. He cautions us, however, againſt the addition of ſuch a quantity of borax, as will entirely ſaturate the acid of the cream of tartar. Becauſe, in that caſe, there will be produced a ſel ſeignette, a ſubſtance very different from ſoluble cream of tartar. His proceſs for obtaining a ſoluble cream of tartar is as follows. To four parts of cream of tartar, he adds one of borax. This is diſſolved in a ſufficient quantity of water, and then ſtrained off. The reſiduum, which, when the maſs ſubjected to ſolution is fifteen ounces, will, in general, amount to one ounce, is thrown away. The pure ſolution, by evaporation, yields a white ſalt of an acid taſte, and extremely ſoluble, which is to be preſerved for uſe.

The author informs us, that he has uſed this ſoluble cream of tartar with great ſucceſs in all kinds of fevers, when refrigerants were indicated. When, however, it is intended to operate as a laxative, a greater quantity is neceſſary than of common cream of tartar. But as it can eaſily be exhibited in a fluid form, and in a ſmall quantity of menſtruum, this occaſions no inconvenience to the patient.

III.

Dn. D. Chriſtiani Rudolphi Hannes *Obſervatio de diris Convulſionibus, Balneo frigido ſanatis. Vid. Nova Acta Phyſico-Medica Academiae Caeſareae Leopoldino-Carolinae Naturae Curioſorum*, tom. quart. 4to, Norimbergae.

THE caſe with which we are here preſented, is that of a girl, about ſixteen years of age. She had formerly enjoyed good health, but, upon a ſudden fright, ſhe was ſeized with faintings and convulſions, which were relieved by bleeding and other remedies. The year following, however, they returned with greater violence than before. She had then recourſe to pills compoſed of aſſa foetida, and other gums; to frictions with nervine ointments; and to powders compoſed of flowers of ſulphur, ſweet mercury, and camphor. While ſhe uſed theſe remedies, her convulſions ceaſed, and an itchy eruption broke out over all her body. This complaint was removed by the medicines uſually employed in ſuch caſes; but, when it diſappeared, her menſes became irregular in point of time, and in ſmaller quantity than uſual, with the appearance of fluor albus.

The year after her convulſions returned a third time with greater violence than ever. She then exhibited a moſt dreadful ſpectacle. Sometimes all the flexor muſcles were contracted and her limbs drawn together; ſometimes the extenſors; and ſhe lay in a convex form, ſupported by her head and feet; ſometimes ſhe was quite ſtiff. Beſides theſe, they appeared alſo in other forms affecting different muſcles.

The cold bath was then propoſed, and it was adviſed, that ſhe ſhould be put into it, when there was any remiſſion of her paroxyſms. If after the bathing there was time, ſhe was ordered to be diligently rubbed and ſwathed with bandages. A decoction of bark and rue was alſo preſcribed for her; and once or twice a-day, a doſe of opium with ſpirit of hartſhorn. Theſe medicines were continued for ſome time, without producing any relief. At length, however, there occurred ſome changes, which gave room to hope, that, in this way, a recovery might be obtained. Her fluor albus firſt ceaſed, then the menſes returned to their proper periods, and in uſual quantity; the convulſions recurred only in a ſlighter degree, and at longer in-

intervals, till at length they entirely ceaſed. It may be a queſtion whether this cure was to be aſcribed to the cold bath or not, as other remedies were employed at the ſame time, and as ſhe had formerly recovered without its being uſed. The author, however, thinks, there is little doubt that, in this caſe, it was of itſelf effectual, as in the following ſpring ſhe was attacked with the ſame diſeaſe, and cured by the bath alone.

IV.

Dn. D. Joannis Caſpari de Rueff, *de Hydropis Pectoris certa vel incerta Diagnoſi. Vid. Nova Acta Phyſico-Medica Academiae Caeſareae Leopoldino-Carolinae Naturae Curioſorum*, tom. quart. 4to, Norimbergae.

IN this diſſertation, the author ſets out with mentioning the difficulty of diſtinguiſhing hydrothorax, and the importance of doing ſo. Baglivi had pointed out a ſudden waking from ſleep, with ſigns of ſuffocation, as the pathognomonic ſymptom of this diſeaſe. He obſerves, that although this ſymptom be often deciſive, yet that ſometimes it is very fallacious, occurring where no water could be found in the thorax after death. On this ſubject, therefore, he adopts the concluſions of De Haen, who had formerly alledged that, if this nocturnal orthopnoea be ſometimes wanting in the moſt violent hydrothorax; if at other times it appear only a few days before death; and if, when preſent, it is found in the advanced ſtate only of the diſeaſe, at a time when all remedies would be ineffectual, it cannot be conſidered as a pathognomonic ſign.

The author, in ſupport of this opinion, adduces two caſes. The firſt is that of a man who complained of a dry cough, ſtraitneſs in his breaſt, and a great difficulty of breathing, with oedematous ſwellings in his feet, ſcanty urine, a nocturnal febrile paroxyſm, and the pathognomonic ſymptom in queſtion. All theſe complaints were ſoon removed by the uſe of ſquill medicines; but a ſhort time after, when he ſeemed to be in perfect health, he died ſuddenly in the night from ſuffocation. Upon diſſection, three pounds of limpid ſerum were found in the thorax, which ſufficiently proved the uncertainty of the diagnoſtic. Beſides this, in both ventricles of the heart, there was a polypus about ſeven inches in length, to which the author aſcribes the immediate cauſe of his death.

The ſecond caſe here related is that of a man who, about ſixty years of age, was affected at night with ſuch a degree of dyſpnoea, that he could ſeldom lie in bed. His left arm and hand were alſo much ſwelled, and very torpid; which is conſidered by both Hoffman and Baglivi as a ſign of latent hydrothorax. But, notwithſtanding this, by proper remedies, he was ſoon relieved, and lived till he was eighty years of age. He then died without any ſymptom of hydrothorax.

From all this the author concludes, that hydrothorax can rarely be known while it admits of a cure; that, when it is known, it can only be cured by paracenteſis; and that, while the nature of the diſeaſe is doubtful, we ſhould perſiſt in the uſe of the remedies adapted to humid aſthma, by the effects of which we may determine whether the diſeaſe we dread be preſent or not.

V.

Triga Obſervationum Sarco-hydroceles raræ magnitudinis Hiſtorias exhibentium, ſubjunctà ſimul Diſquiſitione Cauſarum, cur Sarco-Hydrocele in Teſte ſiniſtro frequentius quam dextro occurrat; a Georgio Balthaſar Stolle, *M. D. Vid. Nova Acta Phyſico-medica Academiae Caeſareae Leopoldino-Carolinae Naturae Curioſorum,* tom. quart. 4to, Norimbergae.

THE author introduces this diſſertation with three caſes of ſarcocele. The firſt is the caſe of a hypochondriac man who had been ſubject to haemorrhoids. On being expoſed to cold, he was attacked with febrile complaints; and the next day the haemorrhoids appeared. But, from a violent fit of anger, the diſcharge by the haemorrhoids was ſoon ſtopt; upon which a ſemitertian fever ſupervened, attended with great anxiety, loſs of appetite, and colick pains. Theſe laſt ſometimes left the bowels, and attacked the left teſticle, which, as well as the ſpermatic cord, became ſwelled. The fever was ſoon cured; but a conſiderable ſwelling ſtill remained on the teſticle; and the colick pains returned from the ſlighteſt cauſe. At this time he got ſome remedies from a quack, who took it to be a venereal complaint. But the ſwelling increaſed to a very great degree, ſtill attended with the colick and ſtomach-complaints. Beſides, ſuch a conſiderable inflation of the belly came on as to endanger its burſting. This inflation of his belly, borborygmi, and other complaints, were much encreaſed by his taking food. When he took none, faintings were the conſequence. After this, his ſcrotum became oedematous, and there was a conſiderable ſwelling reaching from the left hypochondrium to the right ileum. A hectic fever ſupervened, and, at laſt, apoplexy put an end to his miſery. Upon diſſection, the right teſticle was found a little larger than uſual; the left was of a monſtrous ſize, and as hard as a ſtone. It was unequally ſwelled, and in the lower part there was a quantity of a ſerous fluid contained in a cyſt. In the abdomen, there was a conſiderable quantity of ichorous matter; but the ſwelling which appeared externally ſeemed to have proceeded from a ſteatomatous meſentery, which was near an inch in thickneſs. The ſpermatic veſſels were about four times the uſual ſize, and the ſpermatic cord was much ſwelled. The left kidney was diminiſhed, and the left emulgent collapſed; the right kidney, and its veſſels, were larger than ordinary. The ſpleen, liver, and pancreas, were affected with ſcirrhi.

The ſecond caſe gives an account of another ſarcocele of the left teſticle, which, when cut out, independent of the water that was contained between the tunica vaginalis and albuginea, weighed two pounds. Its appearance and conſiſtence were like that of the former one; its colour of a pale yellow. This patient died of a hectic fever, in conſequence of a diſeaſed ſpleen.

In the third caſe there was no diſſection. Hectic ſymptoms, with pains of the bowels, had come on after a quartan fever badly cured. Theſe pains ſoon affected the teſticle, which ſwelled to the ſize of a man's fiſt. The liver was alſo ſcirrhous, and encreaſed to ſuch a ſize, that it could be felt in the left hypochondrium. A phrenitis ſupervening ſoon killed the unhappy patient.

After narrating theſe caſes, the author next proceeds to offer ſome obſervations concerning them. He is of opinion, that the ſemitertian, in the firſt caſe, proceeded from an inflammation of the meſentery, this viſcus being uſually reckoned the ſeat of that diſeaſe. He mentions two examples of ſteatomatous meſenteries, which he obſerved in the hoſpital of Straſburg; the firſt of which weighed ſeventeen pounds, the ſecond twenty four pounds. He contends, that theſe tumours proceed from inflammations of the meſentery.

The author then proceeds to conſider, whether ſarcocele happen oftener in the left than in the right teſticle. Van Swieten, Hildanus, Haller, and others, do not offer any thing that will determine this queſtion. Some thinking the left moſt ſubject to it, ſome the right, while others are of opinion that they may be indifferently affected. But the author concludes, from ſeveral obſervations of his own, ſupported by the authorities of Pfeffinger and Friedius, that diſeaſes of all kinds from internal cauſes moſt commonly attack the left ovaria of women, and the left teſticles of men. As a foundation for determining the reaſon of this fact, he thinks it neceſſary to examine, more accurately than he had before done, the nature of this diſeaſe.

He pronounces it to be a ſcirrhus, ariſing from a ſerous inflammation, according to the idea of Boerhaave. This may ariſe from diſeaſes of different kinds affecting the ſeveral viſcera, which, occaſioning a ſtagnation of blood in them, will produce a determination to other parts; as follows not only from the laws of hydraulics, but from obſervations in diſeaſes, and from experiments made on living animals. In confirmation of the laſt, the author cites an experiment of Brunn, who found that a dog, whoſe pancreas he exſtirpated, was ſeized firſt with an encreaſed flow of ſaliva, afterwards with vomiting, and then with a high degree of laſciviouſneſs. He remarks alſo, that Morgagni, Bonetus, Heiſter, Malpighi, and Boerhaave, had obſerved nearly the ſame appearances upon the exſtirpation of the ſpleen. This, he thinks, can only be accounted for from a determination of fluids to the teſticle; and when it is greater than ſufficient for the purpoſe, ſtagnation muſt enſue. To ſuch ſtagnation, he imagines that the teſticles, from their ſituation, from the diſtenſile nature of their arteries, and from the want of valves in their veins, will be particularly liable. And as the fluids here ſtagnating are of the ſerous kind, he adds, that the inflammation muſt alſo be ſuch. From the ſame cauſe continuing to act, the diſtenſion will be much encreaſed; and as all ſtagnating fluids change their nature, and degenerate into a hard maſs, from reabſorption, a ſcirrhus of the teſticle will be formed.

After thus ſtating his own opinion concerning the nature of this diſeaſe, the author next goes on to take notice of the ſentiments of others. Some have imagined the ſarcocele to be a fleſhy maſs, which they have explained from a luxuriant growth; or from a deſtruction of thoſe membranes which Barbette has ſuppoſed to ſtop the mouths of nouriſhing veſſels, leſt they ſhould convey too much nouriſhment. In refutation of theſe opinions, he obſerves, that the firſt never takes place, unleſs in caſes of wounds; and that the laſt is merely hypothetical.

The author next attempts ſome account of the hydrocele. This, he thinks, happens from an obſtruction of the extremities of the ſpermatic arteries, which, according to his former principles, muſt encreaſe the flow into the neighbouring veſſels, occaſioning the tranſudation of a greater quantity of fluid, than the abſorbents, compreſſed by the obſtructed veins, are able to take up. Hence he thinks it is evident why the hydrocele is ſo common an attendant of the ſarcocele.

Having thus eſtabliſhed the nature of theſe two diſeaſes, he next proceeds to inquire into the reaſon why they affect the left teſticle rather than the right. This, he thinks, he will be able to ſolve, provided he can ſhew a cauſe for a greater determination to the left teſticle, and for ſtagnation there. On conſidering the riſe and progreſs of both ſpermatic arteries, he finds, that the left riſes nearer the teſticle than the right, and that the left ſpermatic vein, inſtead of pouring its contents into the vena cava, riſes up ſo as to pour them into the renal vein; by which it is evident, that its courſe muſt be much longer than that of the right ſpermatic vein. This being the caſe, it is evident, from the laws of hydraulics, that ſtagnation is moſt likely to happen on the left ſide; and that the tendency to it will be encreaſed by the left vein not accompanying the artery ſo cloſely as to have the progreſs of the blood aſſiſted by its pulſations. It is alſo evident from the laws of motion, that any body is more apt to be retarded in proportion to the angle which it makes; and, therefore, the blood in the left ſpermatic vein will move more ſlowly than in the right, ſince it enters at right angles into the left renal vein, which alſo enters at right angles into the vena cava. Beſides this, the left ſpermatic vein carries a greater quantity of blood than the right, receiving branches from parts of the meſentery, meſocolon, and peritoneum which are neareſt it. And, laſtly, the left emulgent vein, before emptying itſelf into the vena cava, paſſes through an angle formed by the aorta and the ſuperior meſenteric artery; ſo that, at every dilatation of theſe arteries, the vein will be compreſſed.

From a review of all theſe circumſtances, the author thinks it apparent, that the left teſticle is more ſubject to ſtagnation, and therefore inflammation, than the right; and conſequently muſt be more liable to ſarcocele from internal cauſes. He concludes with obſerving, that, after what has been ſaid concerning the nature of this diſeaſe, the principles upon which it may be cured, when taken in the beginning, are ſufficiently manifeſt.

VI.

Therapia Scabiei epidemicae per Diureſin nova, ſecura, ſecundum naturae mechaniſmum exacte accommodata, et per ipſam experientiam confirmata, a Chriſtiano Ludovico Friderico Linckio, M. D. Vid. Nova Acta Phyſico-medica Academiae Caeſareae Naturae Curioſorum, tom. quart. 4to, Norimbergae.

IN this diſſertation, we are preſented with an account of an epidemic itch, which reſiſted the influence of ſulphur, mercury, and the other means of cure commonly employed. When repelled, it produced aſthma, vertigo, fever, and, in children, convulſions. But it was ſucceſsfully removed by the employment of diuretics.

The author, previous to his treating of this epidemic, offers ſome obſervations on the itch in general. This he defines to be a puſtular or veſicular efflorеſcence, generally without fever, appearing, in the beginning, with an itchy heat between or round the fingers. He divides the diſeaſe into kindly and malignant, moiſt and dry, chronic and

periodic,

periodic, ſuperficial and deep, ſimple and complicated, epidemic and climateric, venereal and wormy. In proof of this laſt ſpecies, which has not been mentioned by other writers, he mentions an obſtinate caſe of itch, which was cured in eight days after the evacuation of an incredible number of lumbrici from the uſe of jalap. The proximate cauſe of the itch, he ſuppoſes to be a viſcid, ſharp, ſerous humour collected in the membrana adipoſa, and reaching to the cuticle.

After theſe obſervations on the itch in general, he comes to treat of the epidemic before mentioned, and ſets out with recounting the remote cauſes peculiar to it. One of theſe, he imagines to have been the exceſſive coldneſs of the weather, and the frequent changes in it which the common people, from their poverty, were not able to guard againſt. Another cauſe he aſſigns, was the food and drink which the common people were obliged to employ. In conſequence of ſome rainy ſeaſons, their ſole nouriſhment was damaged corn; and, as the vines were deſtroyed from the ſame cauſe, their drink conſiſted entirely of fruits mixed with water, or more commonly of water alone. Beſides theſe, he ſuppoſes, that ſeveral other cauſes might operate, which were in common to this epidemic with the ordinary itch, ſuch as putrid foods of all kinds, ſedentary life, previous diſeaſes, and contagion. He ſeems to be doubtful whether animalcules occaſion the puſtules in the itch, or only ſeek a proper nidus there. With regard to the prognoſis, he is of opinion, that the diſeaſe, if not repelled, is not dangerous; that, if joined with catarrh, it is not ſo ſafe as when without it; and that a perſon, who, having once recovered, ſuffers a relapſe, is in more danger than others.

The author next proceeds to the method of cure, and firſt mentions the remedies which were commonly employed by the vulgar. Theſe were external applications of ſulphur, lead, turpentine, arſenic, mercury, human and animal urine, chalybeate waters, lime-water, and draſtic purgatives. Such applications, he obſerves, were often attended with the worſt effects. He next deſcribes his own method of curing it by means of diuretics. He does not take the merit of this invention to himſelf, but acknowledges that he derived it from a diſſertation written by Mauchartus, intitled *Therapia purpurae receptiori tutior ſolidiorque*. He prefers diuretics to ſudorifics, becauſe, from the extreme veſſels on the ſurface being obſtructed, he imagines that, propelling the blood there, would rather increaſe the diſeaſe. The diuretic which our author employed, he terms the *liquor nitri fixi.* This he found to anſwer the purpoſe better than any other. This liquor, he tell us, is the ſolution of an alkaline ſulphureous ſalt, obtained by deflagrating nitre with powdered charcoal. When rightly prepared, it is of a yellowiſh colour, and of a ſtrong alkaline taſte. It is not, he obſerves, a pure alkaline, but contains a portion of ſulphur, formed by the nitrous acid joining the phlogiſton of the coals. The exiſtence of ſulphur in this liquor is proved by its colour, and by the inflammable precipitate obtained by the addition of an acid. He adviſes that the nitre uſed for this preparation ſhould be free from all mixture of ſea-ſalt, and that the charcoal ſhould be of beech or beet-wood, as containing the largeſt proportion of phlogiſton. The method of preparing the liquor here recommended, is deſcribed in the diſpenſatory of Wurtemburg. After cleanſing the primae viae, the author adminiſtred this medicine, and, with it, either ſome mucilaginous decoction, or plentiful dilution with common water. The conſequence of this was the excretion of very foetid urine, with a copious ſediment. When the acrimony of the urine was ſo great, as to cauſe pains in the urethra, pills of ſoap and lintſeed were given. The accidental occurrence of other diſeaſes, the author treated in the common method. But, when thoſe ſymptoms occurred, which have already been mentioned as following a retroceſſion of this eruption, he gave camphor in large doſes, mixed with abſorbents, by which the eruption, he tells us, was reſtored; and, afterwards, it was cured by the ſolution of the nitrum fixum. With regard to diet, he did not allow his patients meats ſalted or difficult of digeſtion; and he forbade the uſe of fermented or ſpirituous liquors. The only external application he uſed was, water with ſoap, or almond powder, to clean the ſkin. But, when malignant ulcers occurred, they were treated in the common manner.

VII.

Eſſays Medical and Experimental, on the following Subjects. 1. On the Columbo Root. 2. On the Orchis Root. 3. On the Waters of Buxton and Matlock in Derbyſhire. 4. On the medicinal Uſes of fixed Air. 5. On the antiſeptic and ſweetening Powers, and on the Varieties of fixed Air. 6. On the noxious Vapours of Charcoal. 7. On the Atrabilis. 8. On Sea-Salt. 9. On Coffee. To which are added, Select Hiſtories of Diſeaſes, with Remarks; and Propoſals for eſtabliſhing more accurate and comprehenſive Bills of Mortality. By Thomas Percival, M. D. F. R. S. & S. A. 8vo, London.

THE different articles of which Dr Percival here treats, are conſidered in the ſame order in which they are arranged in the title-page. He tells us, on the authority of Dr Hope, who derived this information from Captain Rainey, that the Columbo root grew originally on the continent of Aſia, and was from thence tranſplanted to Columbo, a town in Ceylon, which now gives name to it, and ſupplies all India with it.

The Columbo root is brought to this country in circular pieces, from half an inch to three inches in diameter, and from a quarter of an inch to two inches in length. Its ſenſible qualities are, an aromatic ſmell, and a diſagreeably bitter, and ſlightly pungent taſte. With regard to its medical properties, the author informs us, that Mr Johnſon, a ſurgeon of eminence, uſed it with great ſucceſs in the cure of cholera morbus in the Eaſt Indies. Without uſing any means to cleanſe the ſtomach or bowels, he found that it ſoon ſtopt the vomiting; and that the purging and remaining complaints quickly yielded to the farther uſe of it. The doſe he gave was from half a dram to two drams of the powder, every three or four hours. Dr Percival informs us, that he has frequently obſerved ſalutary effects from its uſe in diarrhoea and dyſentery; and has more than once experienced its efficacy in the vomitings which attend the bilious cholic. He farther informs us, that, in bilious fevers, fifteen or twenty grains, with an equal or double quantity of vitriolated tartar, given every five or ſix hours, produced very beneficial effects. By the advice of our author, Dr Haygarth of Cheſter tried it in an epidemic fever, of the bilious kind, and found, that, after the primae viae were unloaded, it was a moſt uſeful remedy in allaying the nauſea and reachings to which patients were liable, and likewiſe in preventing relapſes.

Beſides theſe diſeaſes, the author recommends Columbo root in the ſevere vomitings and diarrhoea of children during dentition; in a languid ſtate of the ſtomach, attended with want of appetite, indigeſtion, and flatulence; in habitual vomitings, proceeding from weakneſs or irritability of the ſtomach; and in the nauſea and vomiting occaſioned by pregnancy. To illuſtrate theſe general obſervations, five caſes are ſubjoined, after which, he proceeds to relate ſome experiments which he made with Columbo root. In theſe, his views ſeem principally to have been, to diſcover the moſt proper form of exhibiting this medicine, and to determine its power as an antiſeptic.

Upon infuſing Columbo root in rectified ſpirit of wine, in French brandy, Madeira wine, white wine, diſtilled water, white wine vinegar, and hard ſpring-water, he found that the tincture obtained by rectified ſpirit of wine, was conſiderably ſtronger than any of the reſt; that the degree of impregnation obtained from the different menſtrua, was in the order in which they are enumerated; that the infuſion of Columbo root is more periſhable than that of other bitters; and, that the addition of orange-peel renders this infuſion leſs ungrateful to the ſtomach.

In the third experiment, Dr Percival deſcribes a proceſs for making an extract of Columbo root, which he frequently uſed, and found of equal, if not ſuperior efficacy to the powder itſelf.

With regard to the antiſeptic power of Columbo root, it was found that beef kept longer ſweet in an infuſion of Peruvian bark, than in that Cofolumbo root. But that the infuſion of bark, added to putrid ox gall, inſtantly produced a coagulation, and conſiderably increaſed its foetor; whereas, the infuſion of Columbo root united with it, and corrected its offenſive ſmell. This, Dr Percival imagines, ſerves to explain its action in cholera morbus, and renders it probable that it would prove very ſalutary in the yellow fever of the Weſt Indies.

From adding an infuſion of Columbo root to the alimentary mixture, the author finds that it moderates the proceſs of digeſtion without ſuſpending it; and that it both prevents acidities, and neutralizes them after they are formed.

The laſt experiment here related, was made with a view of aſcertaining the action of Columbo root on the heart and arteries. Upon finding that a ſcruple had no effect upon his pulſe, the author took half a dram of it. His pulſe then beat eighty ſtrokes in a minute; but, in ten minutes after taking the powder, it became fuller and ſlower by three ſtrokes. From this, he concludes, that the Columbo root does not belong to the claſs of heating bitters; and that it may be uſed with advantage in phthiſis pulmonalis, and hectical caſes, to correct acrimony, and ſtrengthen the organs of digeſtion.

The author next treats of the preparation, culture, and uſe of the orchis root. From this root, which grows well in a dry and not very fertile ſoil, is prepared ſalep, which forms a conſiderable part of the diet of the inhabitants of Turkey, Perſia, and Syria. The method of preparing the ſalep is as follows: The new root is to be waſhed in water, and the fine brown ſkin which covers it, is to be ſeparated by means of a ſmall bruſh, or by dipping the root in warm water, and rubbing it with a coarſe linen-cloth. The roots thus cleaned, are to be ſpread on a tin plate, and placed in an oven, heated to the uſual degree, where they are to remain ſix or ten minutes. In this time they will have loſt their milky whiteneſs, and acquired a tranſparency like horn, without any diminution of bulk. Being arrived at this ſtate, they are to be removed in order to dry and harden in the air, which will require ſeveral days to effect; or they may be dried in a few hours, by uſing a very gentle heat.

Salep, thus prepared, contains a great quantity of vegetable aliment; as a wholeſome nouriſhment, it is much ſuperior to rice; and has the ſingular property of concealing the taſte of ſalt-water. Hence, to prevent the dreadful calamity of famine at ſea, it has been propoſed that the powder of it ſhould conſtitute part of the proviſions of every ſhip's company. With regard to its medical properties, the author obſerves, that its reſtorative, mucilaginous, and demulcent qualities, render it of conſiderable uſe in various diſeaſes, when employed as aliment; particularly, in ſea ſcurvy, diarrhoea, dyſentery, ſymptomatic fever ariſing from the abſorption of pus, and the ſtone or gravel. From theſe conſiderations, Dr Percival recommends the culture of the orchis root as an object of conſiderable importance to the public, and highly meriting the attention of the rational farmer.

The author next preſents us with ſome experiments and obſervations on the waters of Buxton and Matlock in Derbyſhire. The water of St Ann's well at Buxton, is found to contain calcareous earth, foſſil alkali, and ſea-ſalt, but in very ſmall proportion. The temperature of the bath is about 82 degrees of Fahrenheit's thermometer; and that of St Ann's well, which is a ſmaller body of water, is ſomewhat leſs. The water itſelf is tranſparent, ſparkling, and highly grateful to the ſtomach. The experiments our author made with it were with a view of determining its effect upon the pulſe. Theſe experiments having evinced the heating qualities of Buxton water, Dr Percival ſuggeſts ſeveral precautions to be obſerved on the uſe of it. He adviſes that ſmall quantities only ſhould be drunk at a time; that the belly ſhould be kept open during its uſe; and that, in beginning a courſe of this water, it ſhould be allowed to remain ſome ſeconds in the glaſs before it be ſwallowed, that ſome part of the mineral ſpirit with which it abounds may be diſſipated. As the Honourable Mr Cavendiſh had diſcovered that iron may be ſuſpended in water by means of fixed air, it appeared probable to our author, that a chalybeate impregnation might, with facility, be communicated to the Buxton water. This he found confirmed by experiment; and he imagines that this artificial water, from its agreeable warmth, volatility, levity, and gratefulneſs to the palate, will, in many caſes, be preferable to natural chalybeate ſprings.

Matlock water, the author obſerves, is grateful to the palate and of an agreeable warmth; but it ſhews no marks of any mineral ſpirit. From the experiments here narrated, it appears to be ſlightly impregnated with ſelenites or other earthy ſalts. But it does not ſeem to contain iron, which it has generally been ſuppoſed to do. It appears to have little effect upon the pulſe. In its chemical and medicinal qualities, it greatly reſembles Briſtol water; but Dr Percival thinks, that it claims a preference to this laſt in hectic caſes, and other diſorders where the circulation is rapid and irregular, as it is leſs diſpoſed to quicken the pulſe, and may, therefore, be taken in larger quantities.

We are next preſented with ſome obſervations on the medicinal uſes of fixed air. Having found that fixed air may be inſpired with impunity, Dr Percival has exhibited it as an antiſceptic, in more than thirty caſes of phthiſis pulmonalis. In ſeveral of theſe caſes, the hectic fever was abated; the matter expectorated became leſs offenſive; and in one which was treated by Dr Withering at Stafford, a perfect cure was performed. The author has likewiſe found fixed air to be of ſervice, when applied to foul ulcers and cancers, although, in the laſt, there be but little proſpect of a complete cure. He has alſo found it of great uſe in the ulcerous ſore throat.

In malignant fevers, the author propoſes that wines abounding with fixed air, or artificially impregnated with it, ſhould be adminiſtred, to check the ſeptic ferment and ſweeten the putrid colluvies of the *primae viae*. In putrid diarrhoea and in dyſentery, he farther adviſes the injection of fixed air into the inteſtines. He propoſes, that, in place of ſimple water, as directed by Dr Prieſtly, an infuſion of malt ſhould be impregnated with fixed air, and is of opinion, that ſuch a medicinal drink might be preſcribed with great advantage in ſcrophulous complaints, and in thoſe diſorders in which general acrimony prevails. A remedy capable of being applied to ſo many important purpoſes in medicine certainly well deſerves the attention of phyſicians.

The author next treats of the antiſeptic and ſweetening powers of fixed air, and of its varieties. He is of opinion, with Dr M'Bride, that fixed air has the power of both retarding and correcting putrefaction. The firſt of theſe effects, he imagines, may be aſcribed to its preventing the farther eſcape of fixed air from the ſeptic body; and the laſt, to its abſtracting from it and holding ſuſpended the putrid particles which it emits. With regrad to the varieties of fixed air, from our authors experiments, it appears, that the fixed air generated by putrefaction poſſeſſes properties different from that generated by the breath of animals, and that the fixed air of metals is of a kind different from that which is contained in alkalis and calcareous earth.

We are next preſented with ſome obſervations on the noxious vapours of charcoal, communicated to the author by Dr Dobſon of Liverpool. The baneful influence of the vapours ariſing from burning charcoal has already been authenticated by many caſes, and has in general been aſcribed to ſuffocation. But, from a caſe here related, as well as from ſeveral other hiſtories and obſervations referred to, it is alledged, that theſe noxious vapours exert their effects on the brain and nerves. For the recovery of thoſe who have been expoſed to ſuch vapours, it is propoſed, that they be carried into the open air, and that the air be fanned backwards and forwards to aſſiſt its action; that that the face, mouth, and noſtrils, be repeatedly waſhed with cold water; and that, as ſoon as practicable, the patient be got to drink ſome cold water. Beſides this, breathing into the mouth of the patient, frictions, cupping, bleeding, and bliſtering, are likeways indicated. Dr Percival next ſubjoins ſome obſervations on the atrabilis. He is of opinion, that it is no other than bile become acrid by ſtagnation in the veſica fellea, and rendered viſcid by the abſorption of its fluid parts.

From the experiments of Sir John Pringle, it was concluded, that ſea ſalt, applied in a ſmall quantity, quickens putrefaction. But, from the experiments of Dr Percival, it appears, that this quality is to be aſcribed to the impurity of the ſalt; and that, even when ſalt has this effect, it prevents the progreſs of putrefaction beyond a certain degree.

The author next ſubjoins ſome experiments on coffee. From theſe experiments it appears that it is ſlightly aſtringent; that it moderates alimentary fermentation; and that it is powerfully ſedative. Its action on the nervous ſyſtem he ſuppoſes to depend on the oil it contains, which receives a ſlight empyreumatic flavour by the proceſs of roaſting.

To theſe experimental eſſays are annexed ſelect hiſtories of diſeaſes, of which the following are the principal: 1. A caſe of difficult deglutition cured chiefly by the uſe of mercury. 2. Three caſes of dropſy, the firſt of which was removed by ſpontaneous vomiting; the ſecond terminated fatally, and, upon diſſection, the right ovarium was found very much enlarged and ſcirrhous; the third likewiſe ended in death, from a violent orthopnoea, which the author imagines proceeded from anaſarca of the cellular membrane of the lungs. 3. A caſe of palſy ariſing from the effluvia of lead, in which electricity was ſucceſsfully employed. 4. Two caſes of colic cured by the uſe of alum. This remedy is given from ten to twenty grains, mixed with an equal proportion of ſugar, gum arabic, or ſperma ceti. The author informs us, that, in about fifteen caſes, he has employed it with ſuch ſucceſs as induces him to propoſe it to the trial of other phyſicians. 5. Four caſes of different diſeaſes, in which the warm bath was ſucceſsfully employed. 6. Some miſcellaneous caſes and obſervations, in which, among other things, we have ſome account of the Ajava ſeed, celebrated in Eaſt Indies for the cure of colic; and of the remedy propoſed by Mr White of York as a ſolvent of biliary calculi, which appears to be alcohol ſaturated with oleum terbinthinae aethereum.

This valuable treatiſe is concluded with a propoſal for eſtabliſhing more accurate bills of mortality. On this ſubject, he propoſes, 1. That a table of chriſtenings, marriages, and burials be kept in every place of religious worſhip, to be formed into one general bill, and publiſhed quarterly or annually. 2. That the table of chriſtenings ſpecify the males and females who are baptized, and the table of deaths expreſs the males, who die under the ſeveral denominations of children, batchelors, married men, and widowers; and the females who die under the correſponding denominations of children, maidens, married women, and widows. 3. That the ages under five be ſpecified by ſingle years, and afterwards by periods of five or ten years. 4. That the bills of mortality expreſs particularly the number dying of each diſeaſe, in the ſeveral diviſions of life, and different ſeaſons of the year. For this purpoſe, he propoſes that two tables ſhould be kept, the one of deaths, the other of diſeaſes. The ſcheme might certainly be carried into execution, with no great degree of trouble; and, if conducted with accuracy, would unqueſtionably afford the moſt important inſtructions to the philoſopher as well as the phyſician.

VIII.

Experiments and Obſervations on the following Subjects. 1ſt, On the Preparation, Calcination, and medicinal Uſes of Magneſia Alba. 2. On the ſolvent Qualities of calcined Magneſia. 3. On the Variety in the ſolvent Powers of Quick-lime, when uſed in different Quantities. 4. On various Abſorbents, as promoting or retarding Putrefaction. 5. On the comparative antiſceptic Powers of Vegetable Infuſions prepared with Lime, &c. 6. On the ſweetening Properties of fixed Air; by Thomas Henry Apothecary. 8vo, London.

IN the firſt chapter of this treatiſe, the author ſets out with giving us an account of an improved method for preparing magneſia alba, which he was induced to publiſh, from obſerving that the magneſia generally to be found in the ſhops, is either extremely coarſe, or, which is ſtill worſe, often ſophiſticated with calcareous ſubſtances, differing greatly from true magneſia.

Magneſia was originally prepared from a liquor called the mother of nitre. Hoffman prepared it from the bittern remaining after the cryſtallization of ſea ſalt. And Dr Black employed the factitious Epſom ſalt for the ſame purpoſe. The author of the treatiſe now before us, directs that it ſhould be prepared in the following manner.

Diſſolve, ſays he, any quantity of ſal catharticus amarus, commonly called Epſom ſalt, in its own weight of water, filter the liquor, and add to it, by degrees, a filtrated ſolution of pearl aſhes in an equal quantity of water, ſtirring them gently, until the mixed liquors have acquired the appearance of a complete coagulum, then ceaſe adding any more of the alkaline lixivium; and having diluted the precipitate, and mixed it intimately with a ſmall quantity of hot water, immediately throw the mixture into a large quantity of boiling water: Keep it boiling for a quarter of an hour, then take it out, and put it into glazed earthen veſſels. As ſoon as the powder has ſubſided, and before the water be quite cold, pour it off, and add a freſh quantity of boiling water; repeat theſe ablutions with ſeveral parcels of hot water, till the liquor has entirely loſt its ſaline taſte. Then let it be ſo agitated as to ſuſpend the finer parts of the powder; in which ſtate, decant it into other veſſels, and having ſeparated the water from the magneſia, by inclination, put it on large chalk ſtones, till a conſiderable part of the humidity be abſorbed. Then wrap it up in ſheets of white paper, and dry it before the fire. Pour hot water on the remaining powder, ſtir it, decant it in its turbid ſtate, and ſeparate the magneſia from the water as before. By theſe means, adds he, the whole or moſt of it will be reduced to an equal degree of fineneſs.

In this proceſs, the author adviſes, that particular attention ſhould be paid to the purity of the water. He prefers rain water collected free from impurity, or clear river water. The drying, he tells us, ſhould be performed with expedition; for which reaſon, the chalk-ſtones ſhould be expoſed to a moderate degree of heat. He concludes with directing, that the veſſels ſhould be carefully covered, that no duſt may enter, and that cleanlineſs ſhould be particularly attended to through the whole proceſs.

After this account of the proceſs for making magneſia, Mr Henry next preſents us with ſome miſcellaneous obſervations. Magneſia, he obſerves, poſſeſſes a purgative power, which the calcareous earths entirely want. This he aſcribes to its forming with all the acids a purging ſalt. But he farther alledges, that it is to be conſidered as an earth ſui generis, and is even of itſelf in ſome degree purgative, independent of its junction with any acid. With regard to Dr Cadogan's proceſs for making magneſia, he obſerves, that the proportion of lixivium tartari to the ſal catharticus amarus is greatly inſufficient to precipitate the magneſia, and that the preference which the Doctor gives to ſal tartari over potaſhes, is not well founded, and proves only an unneceſſary refinement.

Mr Dale Ingram had alledged, that pure magneſia could not be prepared from factitious Epſom ſalt, but was to be obtained only from Epſom waters. To this, Mr Henry replies, that magneſia earth is univerſally allowed to be the ſame, from whatever ſubſtance it be obtained, provided it be ſeparated in a pure ſtate; and that Mr Ingram's proceſs, while it has no advantage, muſt be attended with great trouble and expence, as, in order to procure a ſingle pound of magneſia, it will be neceſſary for him to evaporate above ſixty gallons of water, to between five and ſix pints, before he begins the precipitation.

The author proceeds, in the third chapter, to enumerate the medical properties of magneſia. He ſets out with mentioning its utility as an abſorbent, in diſorders of the ſtomach and bowels ariſing from acidity. It has been eſteemed hurtful in bilious habits, where there is a diſpoſition in the ſtomach contrary to acidity. Of this, however, our author is doubtful; and, where putrid bile is to be corrected, he thinks good purpoſes may be anſwered, by taking magneſia, with an acid in the ſtate of effervescence, as the fixed air, thus extricated, will correct the putridity of the contents of the inteſtines, while they are, at the ſame time, evacuated downwards. Although he does not poſitively aſſert that it is uſeful in diſeaſes of the ſkin, yet he is of opinion, that, in ſuch caſes, from entering the circulation in the form of a mild neutral ſalt, it may act as an excellent alterative, proving both diaphoretic and diuretic.

Having given this detail of the medicinal properties of magneſia in its natural ſtate, he next proceeds to treat of calcined magneſia. He agrees with Dr Black in thinking that the changes produced on magneſia by calcination ariſe from its being thus deprived of fixed air. When employed in this ſtate for medical purpoſes, he tells us, that it produces none of thoſe diſagreeable effects in the ſtomach which ariſe from the extrication of the fixed air of uncalcined magneſia; and that it proves nearly as operient as a double quantity of uncalcined magneſia. He is of opinion, that it may be uſeful in diſtenſions of the bowels, ariſing from flatus; that it may be ſucceſsfully employed as a cathartic with patients labouring under the ſtone, who are uſing the lixivium ſaponaceum; and that, joined with warm aromatics, it may be of ſervice in correcting the great flatulency which ſo much afflicts people of a gouty diſpoſition.

In the ſixth chapter, the author conſiders the action of various abſorbents as promoting or retarding putrefaction. We are here preſented with eight experiments. From the firſt, it appears that magneſia, in common with other abſorbents, proves conſiderably antiſeptic to animal fleſh. The ſecond, on the contrary, ſhews, that calcined magneſia

neſia is poſſeſſed of ſtrong antiſeptic powers. But, in the third and fourth experiments, when magneſia was added to ox-gall, it retarded putrefaction very conſiderably, whether applied in a natural or a calcined ſtate. And, from the fifth and ſixth experiments, we farther learn, that magneſia has a power of ſweetening ox-bile already putrid.

In the ſeventh experiment, the author compares the relative ſeptic powers of different abſorbents. Bile, mixed with crab's eyes, grew putrid in forty-eight hours; with chalk, in twelve hours; with magneſia, on the ninth day; with *pulvis e chelis cancrorum*, on the tenth; with *pulvis contrayervae compoſitus* it was preſerved free from corruption for about three weeks; and, with calcined magneſia, no change was obſerved upon it for above the ſpace of a month. By the laſt experiment, it was found, that chalk and magneſia, neutralized with diſtilled vinegar, preſerved bile ſeveral days longer than a ſolution of the artificial Epſom ſalt. From theſe experiments, Mr Henry concludes, that all teſtaceous and abſorbent medicines are by no means improper in fevers of a putreſcent type; that, where bile is ſuſpected to be the cauſe of any putrid diſeaſe, thoſe antiſeptics ſhould be preſcribed which particularly impede its corruption; that, as calcined magneſia is a more powerful antiſeptic than moſt other abſorbents, it merits a preference to theſe; and that, where an acid cacochymy prevails, magneſia, or other abſorbents, taken immediately before or after meal-time, may, by increaſing the putrefactive fermentation of animal food, be of very good ſervice.

The ſeventh chapter contains ſome experiments for aſcertaining the ſolvent powers of calcined magneſia. Dr M'Bride had found, that lime, triturated with reſinous gums, promoted their ſolution in water; but, at the ſame time, that it communicated to them a highly diſagreeable taſte. From Mr Henry's experiments, it appears that magneſia, while it has an equal power in promoting ſolution, is not attended with this inconvenience. Thus, therefore, we have an eaſy and very elegant method of preparing aqueous tinctures from the gum-reſins. Theſe tinctures, however, he obſerves, are calculated only for extemporaneous preſcription, as moſt of them depoſite a ſediment when they have been kept for a week or two.

In the eighth chapter, the author treats of the various ſolvent powers of quick-lime in different quantities. As a menſtruum, well calculated for diſſolving vegetable aſtringents, ſeemed to be a deſideratum in pharmacy, he reſolved to try how far the ſolvent power of water could be increaſed by means of quick-lime. With a view of aſcertaining this, a determined quantity of Aleppo galls, Oak-bark, Peruvian bark, Snake-root, Columbo root, Contrayerva root, Jalap, Ipecacuan, and Rhubarb, were each rubbed, for an equal length of time, with four ounces of rain-water; with two ſcruples of quick-lime, and the ſame quantity of rain-water as before; and with four ounces of lime-water.

From the reſult of theſe experiments, it appeared, that the addition of quick-lime triturated with the roots, impeded their ſolution in water. This the author aſcribes to the lime being in greater quantity than the vegetable could ſaturate with fixed air, by which means, the water would become ſo impregnated with lime, as to be unfit to act upon the vegetable. But, it farther appeared, that lime-water extracted the ſoluble parts of many aſtringent vegetables, and eſpecially their colouring principles, more powerfully than diſtilled water.

Mr Henry next proceeds to examine the comparative antiſeptic powers of the different infuſions above mentioned. With this view, pieces of beef were put into them. From what appeared upon this trial, he concludes, that lime-water, when uſed in ſuch a quantity, in extracting the virtues of vegetables, as not to be ſaturated with the fixed air it receives from them, ſtrongly counteracts putrefaction, although it deſtroy the texture of animal bodies expoſed to its action. But, when employed for the ſame purpoſe, in ſuch a proportion as to be fully ſaturated with air, it increaſes the antiſeptic power of the vegetable, and does not diminiſh coheſion in the fibres of animal bodies expoſed to its action.

Mr Henry concludes this ingenious treatiſe with conſidering the ſweetening properties of fixed air. The experiments of Dr M'Bride on this ſubject were rendered in ſome degree doubtful by thoſe afterwards publiſhed by Dr Alexander. The experiments with which we are here preſented were made with a view of determining this point. They are three in number; and the reſult of them ſhews, that fixed air powerfully corrects the foetor of putrid ſubſtances. By ſome it has been ſuppoſed, that this property of fixed air might depend on the acid it contained; but, from ſix experiments which are here related, there ſeems to be no foundation for ſuch a ſuppoſition. He concludes, therefore, that it muſt be aſcribed to ſome other principle not yet aſcertained.

IX.

Dell' azione del Cuore ne' Vaſi ſanguigni nuove oſſervazioni dell' Abate Spallanzani, *Sacerdote della Congregazione della B. Vergine, e. S. Carlo di Modena Profeſſore di Filoſofia nell' Univerſità e Collegio de' Nobili, e Membro della Società Reale di Londra.* 8vo, Modena.

ALTHOUGH we have not had an opportunity of examining this ingenious treatiſe itſelf, yet we flatter ourſelves that the account here given of it, which is taken from the laſt volume of the Leipſick Commentaries, will not be unacceptable to moſt of our readers.

This work is written in the form of letters to Dr Haller, and contains obſervations concerning the motion of the blood, made upon a plan which he himſelf had before pointed out. It may, however, be obſerved, that the experiments of Haller were made principally upon frogs, and thoſe of this author upon the water ſalamander. The treatiſe itſelf is divided into ſix chapters, which treat of the action of the heart upon the largeſt, the middle-ſized, and the ſmalleſt arteries, upon the ſmalleſt, the middle-ſized, and the largeſt veins.

Upon laying open the thorax, the motion of the heart can be diſtinctly ſeen through the pericardium, which is exceedingly thin. He obſerves, however, that the heart, while included in the pericardium, does not, in its diaſtole, raiſe itſelf ſo high as when that membrane is cut away. In the firſt caſe, it aſcends in a curve line from the left towards the right ſide; but, in the laſt caſe, it aſcends perpendicularly. After examining a hundred and fifty ſalamanders, he could never diſcover one in which the liquor pericardii was wanting. He obſerves, that the blood ruſhing into the auricle aſſumes a reder colour than it had before, which he aſcribes to its being accumulated in greater quantity. The blood in the aorta, he tells us, does not flow in a continued ſtream; and, after an animal had been long ſubjected to an experiment, he could diſcover moments at which this veſſel was entirely empty.

In the middle-ſized arterial veſſels, if the animal be very lively, the motion is in a great meaſure uniform. But, upon the animals being debilitated, the blood moves ſlower in their diaſtole than in the ſyſtole. At length, in their diaſtole, the motion either ceaſes entirely or is retrograde. This flux and reflux, our author terms an oſcillatory motion. This oſcillation in the meſentery ſeems to begin at the ſame inſtant, both in the trunk and ſmall branches. But, in the lungs, it ſeems to begin in the ſmall arteries, and proceed gradually to the larger branches. No air, he tells us, can be diſcovered in the blood, unleſs when there is a rupture of veſſels; and then it forms globules much larger than thoſe of the blood.

The ſmalleſt or capillary arteries, every where obſervable in the body, are not all ſo narrow as to allow a paſſage only for one globule of blood. In theſe, the blood moves only a little ſlower than in the middle-ſized arteries. But, upon the animals being long tormented, the oſcillatory motion above deſcribed begins ſooner in them, and the motion of the blood in them ſooner ceaſes altogether. This author, as well as Dr Haller, diſcovered that the red globules, in veſſels of every diameter, ſwim in another fluid, the particles of which are inviſible.

Dr Haller was unable to diſcover whether the red globules change their figure or not. Fontana, however, had obſerved this in the pulmonary veſſels of frogs. And our author confirms it from his obſervations on the veſſels in the gills of the ſalamander. He obſerved particularly, that, where theſe veſſels formed an acute angle, the globules aſſumed a ſemilunar figure, and did not recover their former ſhape till they had paſſed the angle.

His next obſervations are upon the venous ſyſtem. Dr Haller had not been able to diſcover the beginning of veins in the meſentery of a frog, nor could Spallanzani in that of a ſalamander. The ſize of the ſmalleſt veins which he diſcovered, was ſuch, that a ſingle globule could move in them without friction; but, at the ſame time, it came ſo near in contact with the ſides of the veſſel, that the ſpace between them could not be meaſured. From experiments, he found, that the ſmalleſt veins are ſubject to the motion of the heart; and, while its vigour remained entire, he could diſcover no difference between the celerity of the blood's motion in theſe and in the ſmall arteries.

But, upon the force of the heart being weakened, the celerity of the blood's motion began to languiſh in the ſmall veins, before it did ſo in the ſmall arteries. He found, that the motion of the blood in the trunks of veins was greater than in the branches, when many of theſe joined together. But this celerity was not equally encreaſed, when a ſmall number of branches joined together. This difference of celerity, he obſerved to extend to the conjunction of even the ſmalleſt branches.

Dr Haller had obſerved, that, upon a ſmall branch of a vein being inſerted into a larger, the celerity of the blood's motion in the latter, was often ſo great as to impede the ingreſs of blood from the former. This the author found particularly confirmed in the inſtance of the ſmall veins, which after creeping upon the aorta form themſelves into a ſmall trunk, and then land in the vena cava.

With regard to the middle-ſized veins, the author obſerves, that he could diſcover no difference between the colour of the blood in theſe and in arteries of the ſame ſize. This he adduces as a farther confirmation that the change of colour in the blood depends entirely on the aggregation of the globules. In the meſentery he found the veins both more numerous and larger in diameter than the arteries. But, if the animal was vigorous, the motion of the blood in both was equal, except that the impulſe of the heart could not be diſtinguiſhed in the veins. In the trunk of the pulmonary vein, however, he diſcovered an uncommon velocity, the motion of the blood here being about two-thirds quicker than in the other middle-ſized veins. While the circulation continued vigorous, he could not diſcover whether the blood moved more quickly in the axis of the veins or at the ſides. But, when the circulation became languid, the former of theſe evidently took place. By ſlightly wounding a vein, as well as an artery, globules of elaſtic air can, with facility, be introduced into the blood.

In the laſt chapter, the author treats of the largeſt-ſized veins, that is, of the ſuperior and inferior cava. The celerity of the blood in theſe he did not find to be greater than in the middle-ſized veins. The blood in the ſuperior cava had not an equable motion, but entered the heart in alternate waves; and the pulſation of either vena cava was found to be varied in proportion to its ſize. The author concludes this treatiſe with again illuſtrating, by new examples, the effect which the inſertion of ſmall veins into larger ones has upon the celerity of the blood.

IX.

Memoire ſur un Moyen de diſſoudre la Réſine Caoutchouc, *connue préſentement ſous le nom de* Réſine élaſtique de Cayenne, *et de la faire reparoitre avec toutes ſes qualities. Par* M. Macquer. *Vid. Hiſtoire de L'Academie Royale des Sciences, Année* 1768. 4to, Paris.

THE properties of this reſin, which is found in different parts of South America and Aſia, render it one of the moſt ſingular productions of the vegetable kingdom. No ſubſtance is yet known which is at the ſame time ſo pliable and ſo elaſtic; and it is farther a matter of curioſity, as being capable of reſiſting the action of very powerful menſtrua.

From the account of M. de la Condamine, we learn, that this ſubſtance ouzes out, under the form of a vegetable milk, from inciſions made in a certain ſpecies of tree in the country in which it is found. This liquor gradually dries, and is formed into a ſubſtance of the appearance of leather, which is in a very high degree pliable and elaſtic;

while at the ſame time it poſſeſſes a conſiderable degree of ſolidity. On account of theſe properties, the Omaguas, a numerous nation on the banks of the river of the Amazons, employ this reſin, while yet in a ſtate of milk, for making different utenſils, as goblets, bottles, and the like. As the ſame properties would render it of ſingular utility for many other purpoſes in arts, philoſophers have long wiſhed to diſcover ſome method of diſſolving it in ſuch a manner that it could aſſume different figures with equal eaſe, as when in its original ſtate of milk. In the memoir now before us, we have an account of the manner in which this end may be effected.

The ſtate of vegetable milk in which the Caoutchouc reſin is found when it comes from the tree, led Mr Macquer to imagine, that it was compoſed of an oil and a watery matter. From its wanting aromatic flavour, from its little volatility, and from its being incapable of ſolution in ſpirit of wine, he concluded that the oil which entered its compoſition was not an eſſential, but a fatty one. Hence he thought it probable, that it paſſed from a fluid to a ſolid form, by the evaporation of the watery part; and that the oily ſolvents would reduce it to a ſoft ſtate.

The firſt trials he made for diſſolving it were with lintſeed oil, eſſence of turpentine, and ſeveral others. But all he could obtain by means of theſe menſtrua, was a viſcid ſubſtance incapable of being hardened, and totally void of elaſticity. The rectified eſſential oil of turpentine was employed with ſeemingly greater ſucceſs. To ſeparate from this menſtruum the caoutchouc which it had diſſolved, Mr Macquer added ſpirit of wine to it. But the conſequence was, that part only of the oil united with the ſpirit, the reſt remained obſtinately attached to the reſin which it had diſſolved, and thus prevented it from aſſuming a ſolid conſiſtence.

The author next endeavoured to diſſolve it by means of heat in Papin's digeſter. But neither water nor ſpirit of wine, although, in this way, capable of ſoftening the hardeſt bones, could produce any other effect upon it, than to render it more firm than before. After this, he tried what effect the milky juice of other vegetables would have upon it. He uſed ſeveral kinds, particularly that of the fig. But, in this way, he could obtain no ſolution. From the great volatility of aether, he was next induced to try it as a menſtruum; and for this purpoſe prepared ſome with great attention. The caoutchouc cut into little bits, and put into a proper veſſel, with as much of this aether as was ſufficient to cover it, was perfectly diſſolved without any other heat than that of the atmoſphere. This ſolution was tranſparent and of an amber colour. It ſtill preſerved the ſmell of the aether, but mixed with the diſagreeable odour of the caoutchouc, and it was a little leſs fluid than pure aether. Upon its being thrown into water, no milky liquor was produced, but there roſe to the ſurface a ſolid membrane which poſſeſſed the great elaſticity and other peculiar properties of the caoutchouc.

The Indian method of forming bottles, goblets, and other utenſils of the caoutchouc, is by making moulds of clay, which they cover with thin layers of the caoutchouc, taking care never to lay on a freſh one till the former be dry. After it has acquired the proper thickneſs, by an inſtrument fitted for the purpoſe, they take out the clay.

The ſame proceſs may be followed in forming veſſels of the caoutchouc diſſolved in aether. But, in forming ſmall veſſels, Mr Macquer did not employ moulds of clay, but of wax, which were eaſily removed by throwing the veſſel, after it was finiſhed, into boiling water.

X.

X.

Diſſertatio medica inauguralis, de Balneo; Auctore Bartholomæo Parr. 8vo, Edinburgi.

IN this diſſertation on the warm bath, the author confines himſelf entirely to the effects of ſimple warm water. He divides his ſubjects into four parts. In the firſt, he treats of the effects of the warm bath; in the ſecond, of its uſe in diſeaſes; in the third, of its abuſe; and, in the fourth, of its adminiſtration.

He obſerves, that the effects of the warm bath on the ſimple ſolids, and on the ſecretions, have been accurately detailed; but that the changes it induces on the pulſe, and on the heat of the body, have either been entirely neglected or conſidered only, at leaſt in as far as they have been the ſubject of experiment, in a ſlight and curſory manner. Hence, to aſcertain theſe changes more exactly, he has made many experiments on different people, with the reſult of which we are here preſented.

When the water in the bath raiſed Fahrenheit's thermometer to 96 degrees, he found that the heat of the body and the pulſe were either not changed, or were ſo in a ſlight degree only. The ſuperficial veins did not ſwell in the bath. But, after coming out of it, the urine was diſcharged in a larger quantity then uſual, and the perſpiration ſeemed to be encreaſed.

With the water at 98 degrees, the heat of the body was not changed; the pulſe was very little quickened; and, after an hour, returned to its natural ſtate. The face was ſomewhat ſwelled and red, and was alſo a little moiſt; but there was no apparent ſweat upon it. After coming out of the bath at this heat, the pulſe ſeemed leſs frequent than natural, and a very copious perſpiration enſued.

At a hundred degrees, in a man whoſe pulſe was naturally ſixty, after twenty-five minutes continuance in the bath, it was raiſed to ſeventy-two, and became fuller than natural. The heat of his body was increaſed two degrees, his face began to ſweat, but not copiouſly. The ſuperficial veins in other parts of the body were ſcarcely ſwelled; the cuticle was much wrinkled; and, at length, ſome degree of giddineſs came on. After coming out, his pulſe ſeemed ſlower than natural, and there was no ſweat, but a copious perſpiration.

At a hundred and two degrees, the pulſe, in half an hour, was encreaſed thirty-two ſtrokes in a minute; and the heat of the body was augmented four degrees. The face ſoon became fluſhed; and, after ten minutes continuance in the bath, ſweat ſtood in drops upon it. On coming out, the perſon was put in a bed between blankets, and ſweated profuſely. But, in a ſhort time, the pulſe and heat of the body returned to the natural ſtandard.

At a hundred and four degrees, the pulſe and heat were as much increaſed in twenty minutes as in the laſt experiment after half an hour. When the water came up to the thorax, the breathing was frequent and laborious. The ſuperficial veſſels were much ſwelled, and the face very red, while the ſweat ran down it in full ſtreams. The cuticle continued ſmooth, and there was no remarkable anxiety; but, after twenty minutes, a ſlight vertigo enſued. The ſweat, upon coming out of the bath, was very copious; and it was a quarter of an hour before the heat and pulſe returned to the natural ſtandard.

At a hundred and ſix degrees, all the ſymptoms mentioned in the laſt experiment were much increaſed. The heat of the water was almoſt intolerable. A vertigo and confuſion came on in five minutes; and, in a quarter of an hour, nauſea and faintiſhneſs enſued. On coming out, the ſweat was ſtill more copious than before. The heat of the body ſoon returned to its natural ſtate; but, even after half an hour, the pulſe ſtill continued fuller and quicker than natural.

The effects of the pediluvium were nearly the ſame with thoſe of the warm bath; but the changes from equal degrees of heat were leſs conſiderable. The veſſels in the feet were ſoon ſwelled from it; but it required ſome time before any change took place in thoſe of the hands.

After narrating theſe experiments, the author proceeds to conſider the cauſes of the effects which have been pointed out. And, firſt, he treats of the changes induced on the ſimple ſolids. Of theſe, he thinks, the cuticle only is relaxed by the heat and moiſture of the warm bath; for it ſeems to prevent watery fluids from paſſing it; and, even if they ſhould paſs, a cellular ſubſtance filled with oil would prevent their farther progreſs.

The changes which warm bathing has, in general, been ſuppoſed to produce upon the blood, are an increaſe of its fluidity and its bulk. The firſt of theſe he allows may happen, both in conſequence of an abſorption of water, and of beginning putrefaction. He thinks, however, that it will, in moſt caſes, be obviated by the ſecretions being increaſed. With regard to the increaſe of bulk, he entertains many doubts. He obſerves, that there is no rule by which we can, *a priori*, determine the expanſility of any fluid. Sauvages and Haller had endeavoured to determine this ſubject by experiments upon the blood put into a thermometer; from which they concluded, that it poſſeſſed but a ſmall degree of expanſility. But our author is of opinion, that theſe experiments cannot be entirely truſted, as, in letting the blood, ſome portion of it, particularly an aerial matter, flies away. Upon this, however, its expanſility may depend. But, after all, he is inclined to believe, that the great ſwelling of the veins obſervable upon warm bathing cannot be ſolely produced by an expanſion of the blood, but muſt, in ſome degree, be owing to a diminiſhed tone of the containing veſſels.

After this, he proceeds to conſider the changes induced on the nervous ſyſtem. He ſets out with adducing ſome proofs, that a ſympathy ſubſiſts between the extreme veſſels and other parts; and, on this footing, proceeds to explain theſe changes. He is of opinion, that, by the immediate contact of warm water, the extreme veſſels will be relaxed; and that this relaxation will, by ſympathy, be communicated to other parts. Hence, the ſhrivelled ſkin, the ſoft and full pulſe, the ſwelling of the veins, and the debility and increaſed ſenſibility of the nervous power. But this relaxation ſeldom occurs, without ſome appearance of a ſtimulus, which ſeems to depend upon the heat of the water. In conſequence of this, the pulſe becomes more frequent, the ſurface ſwells, and the excretions are increaſed. The frequent and laborious reſpiration depends, he thinks, on the rarefaction of the air in the lungs, which compreſſes the blood-veſſels, and brings on a difficulty in the circulation, which can only be remedied by an increaſed inſpiration.

Having thus endeavoured to point out, and explain the effects of the warm bath, the author next proceeds to treat of its uſe. As its only conſtant and conſiderable effects ariſe from a change in the vital ſolids, it is, he obſerves, from ſuch a change alone that any indications can be drawn. The two principal effects of this kind are ſtimulant and ſedative.

As a ſedative, the warm bath, he tells us, may be uſed, 1*ſt*, To relax the extreme veſſels, and, in conſequence of that, the whole ſyſtem. And, 2*dly*, To produce derivation to the ſurface, or to any particular part. With the firſt of theſe intentions, it is uſed, he tells us, in diſeaſes ariſing from too little irritability, and in thoſe which proceed from a contraction of the muſcular fibres. To illuſtrate this, ſome obſervations are ſubjoined concerning the uſe of the warm bath in particular diſeaſes. The diſeaſes which he conſiders as ariſing from diminiſhed irritability are melancholy and hypochondriaſis. And thoſe of which he treats as ariſing from increaſed contraction, are hyſteria, epilepſy, tetanus, fever, ſmall-pox, plague, haemorrhagy, phlegmaſiae, amenorrhoea, ileus, calculus, and tuſſis convulſiva. From its power of producing derivation, it is uſeful, he tells us, in diſeaſes depending on acrimony, and on altered determination. He illuſtrates the firſt of theſe by ſome remarks on its employment in cutaneous diſeaſes, hydrophobia, and ſyphilis; and the laſt, by ſome obſervations on its uſe in diarrhoea and long continued catarrh.

As a ſtimulus, warm bathing, he obſerves, is uſed only to increaſe the nervous power, when morbidly diminiſhed. To illuſtrate this, he offers ſome remarks on its employment in palſy, chronic rheumatiſm, and contracted limbs.

The author next proceeds to treat of the abuſe of warm bathing. The inconveniences thence ariſing are derived from the ſame ſources which are the foundation of its uſe, that is, from its ſtimulant and ſedative powers. As a ſedative, he obſerves, it is hurtful in chloroſis, amenorrhoea depending upon debility, and ſcurvy. In this veiw likeways, when the heat is much increaſed, it becomes hurtful in tetanus, hyſteria, plague, and putrid fever. As a ſtimulus, it is hurtful where any of the viſcera are obſtructed, or where there are crudities in the primae viae. It is alſo to be forbid with thoſe liable to haemorrhagies, and with pregnant women. The author farther obſerves, that Hoffman has remarked its producing fatal conſequences after a fit of anger; and, laſtly, he is of opinion, that it will be hurtful to aſthmatics, from the difficulty of reſpiration which it occaſions.

The laſt ſubject of which our author here treats, is the adminiſtration of the warm bath. This he obſerves, has in a great meaſure been conſidered already. If we wiſh for its ſedative effects, he thinks, that the heat ſhould not be more than 98 or 100 degrees, and that the patient ſhould continue in it for an hour or longer. But, if a ſtimulus be wanted, the heat, he tells us, ſhould at the firſt be 106 degrees, and, if poſſible, increaſed till ſome nauſea or vertigo come on. When the warm bath is uſed in ſpaſmodic caſes, or to evacuate any morbid matter, the patient, he obſerves, on coming out of it, is in general directed to be laid in flannel; but, if this be diſagreeable, his linen is ordered to be well dried and frequently changed. But ſhirts of cotton-cloth, he obſerves, probably poſſeſs the advantages of both.

SECT. II.

Medical Obſervations.

* * *

I.

Caſes of Putrid Fevers, in which fixed Air was injected into the Inteſtines, with apparent Advantage, by Thomas Percival, M. D. F. R. S. and S. A.

About twelve months ſince, my learned friend, the reverend Doctor Prieſtly, ſuggeſted to me the trial of fixed air in putrid fevers, adminiſtred under the form of clyſters. And I was ſoon after favoured, by a gentleman of eminence in his profeſſion at Leeds, with a very ſatisfactory hiſtory of the ſucceſsful exhibition of this remedy, of which the following is an abridged account.

CASE I.

January 8. 1772. Mr L———, a young gentleman, was ſeized with a fever, which, after continuing about ten days, began to be attended with thoſe ſymptoms which indicate a putreſcent ſtate in the fluids.

18. His tongue was black, he dozed much, his pulſe was low, and beat 110 ſtrokes in a minute, and his belly was looſe.

20. His ſtupor increaſed, and he ſometimes voided his urine and foeces without giving notice to his attendants. His ſkin was dry and harſh, but without petechiae; and his ſtools were hot, watery, black, and very foetid.

22. The preceeding ſymptoms continued with increaſed violence, and a ſubſultus tendinum came on, notwithſtanding the uſe of the Peruvian bark, tormentil root, elixir of vitriol, tincture of roſes, and every means which the ſkill or experience of his phyſicians could ſuggeſt. A different method of cure was, therefore, propoſed and carried into execution. The patient was directed to drink freely of orange-wine, which retained its ſweetneſs,

neſs, and was in briſk fermentation. The tincture of bark was continued, and the water which was mixed with it was impregnated with mephitic air from a large vat of fermenting wort. Inſtead of aſtringent clyſters, air ſet free from an efferveſcing mixture of chalk and the acid of vitriol was injected by means of the inſtrument which is uſed for conveying the fumes of tobacco into the inteſtines.

23. His ſtools were leſs frequent; their heat and foetor were likewiſe conſiderably diminiſhed; his ſtupor was much abated; and the ſubſultus tendinum had left him.

24. He was much better, and there ſeemed to be no neceſſity for repeating the clyſters. The other means were continued.

25. All the ſymptoms of putreſcency had left him; his tongue and teeth were clean; there remained no unnatural blackneſs or foetor in his ſtools; and the diſagreeable odour of his breath and perſpiration was no longer perceived. He began to take nouriſhment, and ſoon recovered his uſual health and ſtrength.

This ſtriking proof of the efficacy of the injections of fixed air encouraged me to try them in the following deplorable caſe. And, though the diſeaſe proved fatal to the patient, it ſeems probable to me, and to another gentleman of the faculty who attended him, that his life was protracted, and his ſufferings mitigated, by the continued uſe of this remedy.

CASE II.

Mr W—— aetat. 44. corpulent, inactive, with a ſhort neck, and addicted to habits of intemperance, was attacked, on the 7th of July 1772, with ſymptoms which ſeemed to threaten an apoplexy. On the 8th, a bilious looſeneſs ſucceeded, with a profuſe haemorrhage from the noſe. On the 9th, I was called to his aſſiſtance. His countenance was bloated, his eyes heavy, his ſkin hot, and his pulſe hard, full, and oppreſſed. The diarrhoea continued; his ſtools were bilious and very offenſive; and he complained of griping pains in his bowels. He had loſt, before I ſaw him, by the direction of Mr Hall, a ſurgeon of eminence in Mancheſter, eight ounces of blood from the arm, which was of a lax texture; and he had taken a ſaline mixture every ſixth hour. The following draught was preſcribed, and a doſe of rhubarb directed to be adminiſtred at night.

℞ *Aq. Cinnam. ten.* ʒi. *Succ. Limon.* ℥*ſs. Salis Nitri* gr. xii. *Syr. e Succo Limon.* ʒi *M. f. hauſt.* 4is *horis ſumendus.*

July 11. The diarrhoea was more moderate, his griping pains were abated, and he had leſs ſtupor and dejection in his countenance; pulſe 90, not ſo hard or oppreſſed. As his ſtools continued to be foetid, the doſe of rhubarb was repeated; and, inſtead of ſimple cinnamon water, his draughts were prepared with an infuſion of Columbo root.

12. The diarrhoea continued; his ſtools were involuntary, and he diſcharged in this way a quantity of black, grumous, and foetid blood. Pulſe hard and quick; ſkin hot; tongue covered with a dark fur; abdomen ſwelled; great ſtupor. Ten grains of the Columbo root, and fifteen of the gummi rubrum aſtringens were added to each draught. Fixed air, under the form of clyſters, was injected every ſecond or third hour, and directions were given to ſupply the patient plentifully with water artificially impregnated with mephitic air. A bliſter was alſo laid between his ſhoulders.

13. The diarrhoea continued, with frequent diſcharges of blood; but the ſtools had now loſt their foetor. Pulſe 120; great flatulence in the bowels, and fulneſs in the belly. The clyſters of fixed air always diminiſhed the tenſion of the abdomen, abated flatulence, and made the patient more eaſy and compoſed for ſome time after their injection. They were directed to be continued, together the medicated water. The nitre was omitted, and a ſcruple of Confect. Damocratis was given every fourth hour in an infuſion of Columbo root.

14. The diarrhoea was now checked. His other ſymptoms continued as before. Bliſters were applied to the arms; and a dram and a half of the tinctura ſerpentariae was added to each draught.

15. His pulſe was quicker, more irregular, and feeble. He doſed much, talked incoherently, and laboured under a ſlight degree of dyſpnoea. His urine, which had hitherto aſſumed no remarkable appearance, now became pale. Though he diſcharged wind very freely, his belly was much ſwelled, except for a ſhort time after the injection of the air-clyſters. The following draughts were then preſcribed,

℞. *Camphorae, Mucilag. G. Arab. ſolutae* gr. viii. *Infuſ. Rad. Columb.* ℥iſs. *Tinct. Serpent.* ʒii. *Confect. Card.* ℈i. *Syr. Cort. Aurant.* ʒi *M. f. hauſt.* 4*is horis ſumendus.*

Directions were given to foment his feet frequently with vinegar and warm water.

16. He has had no ſtools ſince the 14th. His abdomen is tenſe. No change in the other ſymptoms. The Tinct. Serpent. was omitted in his draughts, and an equal quantity of Tinct. Rhei Spt. ſubſtituted in its place.

In the evening, he had a motion to ſtool, of which he was for the firſt time ſo ſenſible, as to give notice to his attendants. But the diſcharge, which was conſiderable and ſlightly offenſive, conſiſted almoſt entirely of blood, both in a coagulated and in a liquid ſtate. His medicines were, therefore, varied as follows.

℞ *Decoct. Cort. Peruv.* ℥iſs. *Tinct. Cort. ejuſd.* ʒii. *Confect. Card.* ʒi. *Gum. Rub. aſtring. gr.* xv. *Pulv. Alumin. gr.* vii. *M. f. hauſt.* 4*is horis ſumendus.*

Red port-wine was now given more freely in his medicated water, and his nouriſhment conſiſted of ſago and ſalep.

In this ſtate, with very little variation, he continued for ſeveral days, at one time coſtive, and at another diſcharging ſmall quantities of foeces, mixed with grumous blood. The air-clyſters were continued, and the aſtringents omitted.

20. His urine was now of an amber colour, and depoſited a ſlight ſediment. His pulſe was more regular, and, although ſtill very quick, abated in number ten ſtrokes in a minute. His head was leſs confuſed, and his ſleep ſeemed to be refreſhing. No blood appeared in his ſtools, which were frequent, but ſmall in quantity; and his abdomen was leſs tenſe than uſual. He was extremely deaf; but gave rational anſwers to the few queſtions which were propoſed to him; and ſaid he felt no pain.

21. He paſſed a very reſtleſs night; his delirium recurred; his pulſe beat 125 ſtrokes in a minute; and his urine was of a deep amber colour when firſt voided; but, when cold, it aſſumed the appearance of cow's whey. The abdomen was not very tenſe, nor had he any farther diſ-

charge of blood. Directions were given to ſhave his head, and waſh it with a mixture of vinegar and brandy; the quantity of wine in his drink was diminiſhed, and the frequent uſe of the pediluvium was enjoined. The air-clyſters were diſcontinued, as his ſtools were not offenſive, and his abdomen leſs diſtended.

22. His pulſe was now ſmall, irregular, and beat 130 ſtrokes in a minute. The dyſpnoea was greatly encreaſed; his ſkin was hot, and bedewed with a clammy moiſture; and every ſymptom ſeemed to indicate the approach of death. In this ſtate he continued till evening, when he recruited a little. The next day he had ſeveral ſlight convulſions. His urine, which was voided plentifully, ſtill put on the appearance of whey when cold. Cordial and antiſpaſmodic draughts, compoſed of camphor, tincture of caſtor, and ſpt. vol. aromat. were now directed; and wine was liberally adminiſtered.

24. He roſe from his bed, and, by the aſſiſtance of his attendants, walked acroſs the chamber. Soon after he was ſeized with a violent convulſion, in which he expired.

To adduce a caſe which terminated fatally, as a proof of the efficacy of any medicine recommended to the attention of the public, may perhaps appear ſingular. But it cannot be deemed abſurd, when that remedy anſwered the purpoſes for which it was intended. For, in the inſtance before us, fixed air was employed, not with an expectation that it would cure the fever, but to obviate the ſymptoms of putrefaction, and to allay the uneaſy irritation in the bowels. The diſeaſe was too malignant, the nervous ſyſtem too violently affected, and the ſtrength of the patient too much exhauſted by the diſcharges of blood which he ſuffered, to afford hopes of recovery from the uſe of the moſt powerful antiſeptics.

But, in the ſucceeding caſe, the event proved more fortunate.

CASE III.

Elizabeth Grundy, aged ſeventeen, was attacked, on the 16th of December 1772, with the uſual ſymptoms of continued fever. The common method of cure was purſued; but the diſeaſe increaſed, and ſoon aſſumed a putrid type. On the 23d, I found her labouring under a conſtant delirium, with a *ſubſultus tendinum*. Her ſkin was hot and dry, her tongue black, her thirſt immoderate, and her ſtools frequent, extremely offenſive, and for the moſt part involuntary. Her pulſe beat 130 ſtrokes in the minute; ſhe doſed much, and was very deaf. I directed wine to be adminiſtered freely, a bliſter to be applied to her back, the pediluvium to be uſed ſeveral times in the day, and mephitic air to be injected under the form of a clyſter every two hours. The next day her ſtools were leſs frequent, had loſt their foetor, and were no longer diſcharged involuntarily; her pulſe was reduced to 110 ſtrokes in the minute, and her delirium was much abated. Directions were given to repeat the clyſters, and to ſupply the patient liberally with wine. Theſe means were aſſiduouſly purſued for ſeveral days; and the young woman was ſo much recruited by the 28th, that the injections were diſcontinued. She was now quite rational, and not averſe to medicines. A decoction of Peruvian bark was therefore preſcribed, by the uſe of which ſhe ſpeedily recovered her health.

II.

CASES *on different Subjects, by* Dr Manget, *Phyſician at* Geneva.

CASE I. *The Progreſs of the Small Pox from Innoculation retarded by the Meaſles.*

In the month of February 1772, I innoculated a child according to the Suttonian method. The eruption appeared on the ſeventh day. Altho' the weather was very cold, the boy remained, in general, in the open air, as he found it relieved him from the anxiety which accompanied the eruption. After two days of variolous fever, a new eruption appeared perfectly diſtinct from the former. This I ſoon diſcovered to be the meaſles. I then adviſed that he ſhould no longer be expoſed to cold air. But, from his impatience under confinement, this was not complied with. The meaſles, however, kept out well; and, about the end of the fourth day, terminated by deſquamation, without any bad conſequence. It was remarkable, in this caſe, that the ſuppuration of the ſmall-pox, which had begun before the meaſles appeared, was totally ſuſpended, and did not again renew its courſe till they were finiſhed.

niſhed. By this means, the continuance of the ſmall-pox was prolonged about four days beyond the uſual period of that diſeaſe.

CASE II. *A Suppreſſion of Urine, from Pus compreſſing the Neck of the Bladder.*

A man was attacked with an inflammation of the abdomen, between the peritoneum and muſcles of the lower belly. After continuing for ſome time, it terminated in ſuppuration. The pus made its way down towards the neck of the bladder; which it compreſſed in ſuch a manner as to occaſion a violent retention of urine, and abſolutely to prevent the introduction of a catheter into the bladder. I was conſulted with regard to the retention of urine. And, without knowing the cauſe of the obſtruction, I adviſed that a puncture ſhould be made into the bladder by the rectum. So ſoon as this was done, there iſſued from the anus a large collection of pus, upon which all the complaints ceaſed, and the patient is ſince perfectly recovered.

CASE III. *A locked Jaw from a Nerve being pricked by a falſe Tooth.*

A lady, after five days illneſs, lately died here of a convulſion of the lower jaw, which was occaſioned by a nerve being pricked in the ſocket of one of her teeth, from a ſlight ſtroke upon a falſe tooth, which had been introduced into that ſocket. Her complaints began with pain and ſwelling in the jaw, which the phyſician who attended her imagined to be rheumatic. Upon this, a bliſter was applied; but the evil increaſed, the jaw became immoveable, and deglutition was entirely prevented. Recourſe was then had to bathing, bleeding, fumigations, emollient cataplaſms, embrocations, and laudanum; but all to no purpoſe. In ſpite of every thing that was done, ſhe died in excruciating pain. I informed her phyſician of a cure which I had made in a caſe ſomewhat ſimilar, about eight days before. A young man was brought to the hoſpital, affected with a locked jaw, upon which tetanus had ſuperveened. Theſe complaints happened from a nerve being pricked in the arm, in conſequence of bleeding. After, in vain, trying all the ordinary methods of cure, for the ſpace of eight days, I at length employed mercurial friction, which was followed by the moſt happy effect.

SECT. III.

Medical News.

* * *

AN analyſis of cream of tartar has lately been publiſhed by Mr Schele, in the third part of the Swediſh Tranſactions for the year 1770. Many opinions, before very generally received in chemiſtry, are rendered doubtful, from his experiments on this ſubject. We here ſubjoin a ſhort account of the chief of theſe.

If cream of tartar be diſſolved in a ſufficient quantity of boiling water, and fine chalk in powder added to it, till the effervеſcence ceaſes, a copious white ſediment will fall to the bottom, and the liquor which remains over it will, by evaporation, afford ſoluble tartar. This proves, that cream of tartar is not, as has commonly been ſuppoſed, an acid joined with impurities; but that it is really a compound ſalt, containing an alkali joined with an acid. It farther proves, that the alkaline ſalt, obtained from cream of tartar by deflagration, is not generated in the fire, but was actually pre-exiſtent in the tartar.

The white ſediment obtained in the above experiment, is the calcareous earth combined with the acid of tartar, and may juſtly be called Selenites Tartareus. From this it appears, that the effect which is produced by the addition of chalk to a ſolution of cream of tartar is, to carry to the bottom that portion of acid which the cream of tartar contains in a higher degree than is neceſſary to ſaturate its alkali; and that cream of tartar is a compound ſalt in which the acid is ſuperabundant.

If, upon the ſelenites tartareus, obtained by the former experiment, a quantity of vitriolic acid in a diluted ſtate be poured, the vitriolic acid, uniting with the calcareous earth, forms a gypſum, and the liquor which ſtands over it is pure acid of tartar. This acid of tartar may, by inſpiſſation, be made ſtronger, and may be even formed into ſmall white cryſtals, which do not ſuffer deliqueſcence in the open air. Thus it apppears, that the acid of tartar can, even by itſelf, exiſt in a ſolid ſtate.

Cream of tartar may be artificially made in the following manner: Upon fixed vegetable alkali, pour a quantity of the acid of tartar, obtained in the manner pointed out in the laſt experiment. Continue this till the effervescence be over; the fluid will then be tranſparent. But, if more of the acid of tartar be added, it will become turbid, and white, and ſmall cryſtals like white ſand will concrete in it, which are a perfect cream of tartar. The cream of tartar thus formed, may again be decompoſed in the manner already mentioned. If the acid of tartar be poured upon volatile, inſtead of fixed alcali, a kind of cream of tartar will be formed, which is almoſt as difficultly diſſolved in water as common cream of tartar.

Theſe experiments have been repeated by Dr Black, Profeſſor of chemiſtry at Edinburgh, and have turned out in the ſame manner as is here repreſented. Dr Black has farther diſcovered, that if, inſtead of chalk, a certain proportion of quick-lime be added to the ſolution of cream of tartar, the whole acid will be abſorbed by the lime, and the liquor found above the ſediment will, in that caſe, contain alkali alone.

The following particulars, concerning the celebrated Dr Aſtruc, are extracted from the Leipſic Commentaries, vol. 17. part 2.

John Aſtruc was born in the year 1684, at the little town of Savoy, in the province of Languedoc. His father, who was a proteſtant clergyman, beſtowed particular pains upon the earlieſt part of his education. After which, he went to the univerſity of Montpelier, where he was created maſter of arts in the year 1700. He then began the ſtudy of medicine; and, in two years, obtained the degree of batchelor, having, upon that occaſion, written a diſſertation on the cauſe of fermentation, which he defended in a very ſpirited manner. On the 25th of January 1703, he was created doctor of phyſic; after which, before arriving at extenſive practice, he applied to the ſtudy of medical authors, both ancient and modern, with uncommon aſſiduity. The good effects of his ſtudy ſoon appeared; for, in the year 1710, he publiſhed a treatiſe concerning muſcular motion, from which he acquired very high reputation. In the year 1717, he was appointed to teach medicine at Montpelier, which he did with ſuch perſpicuity and eloquence, that it was univerſally ſaid, he had been born to be a profeſſor.

ſor. His ſame ſoon roſe to ſuch a height, that the King aſſigned him an annual ſalary, and he was, at the ſame time, appointed to ſuperintend the mineral waters in the province of Languedoc.

But, as Montpelier did not afford ſufficient ſcope for his aſpiring genius, he went to Paris with a great ſtock of manuſcripts, which he intended to publiſh, after ſubjecting them to the examination of the learned. Soon after, however, he left it, having, in the year 1729, accepted the office of firſt phyſician to the King of Poland, which was then offered to him. His ſtay there was but of ſhort duration, and he again returned to Paris.

Upon the death of the celebrated Geoffroy in the year 1731, he was appointed Regius Profeſſor of medicine at Paris. The duties of this office he diſcharged in ſuch a manner, as to anſwer even the moſt ſanguine expectations. He taught the practice of phyſic with ſo great applauſe as to draw from other univerſities to that of Paris, a great concourſe of medical ſtudents, foreigners as well as natives of France. At the ſame time, he was not more celebrated as a profeſſor than a practitioner. And, even at an advanced age, he perſiſted with unwearied aſſiduity in that intenſe ſtudy which firſt raiſed his reputation. Hence it is, that he has been enabled to tranſmit to poſterity ſo many valuable monuments of his medical erudition. He died, univerſally regreted, on the 15th of May 1766, in the 82 year of his age.

An eminent practitioner at Leyden has of late uſed the oculi cancrorum with great ſucceſs in the cure of fluor albus. He gives this medicine to the quantity of half an ounce in a day, and obſerves, that it is particularly ſerviceable in that ſpecies of fluor albus where the acrimony of the diſcharge is ſo great as to corrode the parts.

A celebrated lecturer in London alledges, that alkaline ſubſtances in general poſſeſs a lithontriptic power. Not that, when taken internally, they are really applied to ſtones in the urinary paſſages in ſuch a ſtate as to be capable of diſſolving them; but becauſe they poſſeſs a power of depriving the urine of its petrifying property, and reduce it more to the ſtate of a watery fluid. As a proof of this, he alledges, that the urine of a man, who has for a conſiderable time taken an alkali, whether cauſtic or not, depoſites no ſediment, and forms no incruſtations in the pot. Hence he concludes, that, for the cure of ſtone, the efficacy of the medicine will be little altered by its being given in a mild or cauſtic ſtate. He adviſes, therefore, that, when alkali is to be employed for the cure of the ſtone, cauſticity ſhould always be avoided; becauſe it is not only apt to diſagree with the ſtomach, but likewiſe obliges us to employ the alkali in ſmall doſes.

Conſiderable benefit has lately been obtained at Edinburgh from the internal uſe of the cicuta in ſome cancerous caſes. It is obſerved, that the extract is much more powerful when prepared from the ſeeds, than when prepared from the leaves; and that the cicuta has ſeldom a good effect, unleſs it be carried to ſuch a height as to produce a ſlight degree of giddineſs.

The Profeſſors of medicine at Edinburgh have lately received a letter from Mr James Ker, a ſurgeon in Bengal, in which he gives them a particular account of the preparation of the terra Japonica. From this letter it appears, that the terra Japonica is not obtained, as has commonly been imagined, from a ſpecies of the palm tree, but from a ſpecies of the mimoſa, which grows in great abundance in the kingdom of Bahar. It is prepared from a decoction of the inner part of the wood. From the negligent method in which it is dried in little kilns dug for that purpoſe, it acquires the earthy appearance which it in general has. In the kingdom of Bahar, beſides being much uſed in medicine, it is employed for many purpoſes in arts, particularly, for painting the beams of houſes to defend then againſt vermin.

A faithful and minute regiſter of deaths, and of the various diſeaſes moſt fatal at particular ages in different places, muſt evidently be of great importance to phyſicians in their endeavours to relieve the miſeries of human nature. It is with peculiar pleaſure, therefore, we can inform our readers, that a bill of mortality in the city of Cheſter for the year 1772 has been drawn up with all the preciſion that could be deſired. It is greatly to be wiſhed that an example ſo worthy of imitation be followed in other parts of Britain.

A pamphlet has lately been publiſhed, concerning an antimonial medicine, which is advertiſed and ſold at London under the title of the *Edinburgh Powder*. It is ſaid to be prepared under the direction of a Society of phyſicians at their own laboratory. From its bearing the name of the *Edinburgh Powder*, it has been ſuppoſed by many to be the work of a Society in Edinburgh. Accordingly, ſeveral medical gentlemen in different parts of the kingdom have written to Edinburgh, inquiring who are the members of that Society. As others, who have not the ſame opportunities of information, may wiſh to have an anſwer to the ſame queſtion, we think it may not be improper to inform the public, that the Society alluded to in the above mentioned pamphlet does not ſubſiſt at Edinburgh; and that the antimonial medicine ſold under the title of the *Edinburgh Powder* is not prepared at that place.

In a letter from Dr Ruſh, profeſſor of chemiſtry in Philadelphia, to Dr Duncan phyſician in Edinburgh, the following account is given of a new anthelmintic medicine. "It has long, ſays he, been a complaint among phyſicians, that we have no worm-medicine which can be depended upon. Even calomel fails in many caſes where there are the moſt pathognomonic ſigns of worms in the bowels. But this complaint, it is to be hoped, is now at an end. The phyſicians in Jamaica have lately found, that the bark of the ſummit of the cabbage-tree, made into a ſyrup with brown ſugar, is an infallible antidote to them. I have uſed above thirty pounds of it, and have never found it fail in one inſtance. The ſyrup is pleaſant. It ſometimes pukes, and always purges, the firſt or ſecond time it is given."

Since the publication of Mr Duguid's letter to Dr Monro, in the ſecond volume of the Phyſical and Literary Eſſays, the bark of the cabbage-tree has been uſed as an anthelmintic by ſeveral practitioners in Edinburgh. But they have in general complained of the violence of its operation, both as an emetic and cathartic. This ſyrup, it would appear, is equally efficacious with the decoction of the bark, without being liable to the ſame objection.

On Wedneſday the 5th of May, Dr Alexander Monro-Drummond was unanimouſly elected Profeſſor of the Inſtitutions of Medicine in the Univerſity of Edinburgh, that office being vacant by the appointment of Dr Cullen to ſucceed the late Dr Gregory as profeſſor of practice.

SECT. IV.

A Liſt of new Books.

OBſervations on Epidemic diſorders, with remarks on nervous and malignant fevers. By James Sims, M. D. 8vo, London.

A new inquiry into the cauſes, ſymptoms, and cure of putrid and inflammatory fevers, with an appendix on the hectic fever, and on the ulcerated and malignant ſore throat. By William Fordyce, M. D. 8vo, London.

An eaſy way to prolong life, by a little attention to what we eat and drink. Collected from the authorities of our ableſt phyſicians. By a medical gentleman, 8vo, London.

Obſervations upon lightning, and the method of ſecuring buildings from its effects, in a letter to Sir Charles Frederick. By Benjamin Wilſon, F. R. S. 4to, London.

The preſent practice of midwifery conſidered, 8vo, London.

The inefficacy of all mercurial preparations in the cure of venereal and ſcorbutic diſorders, proved from reaſon and experience. By Henry Saffroy, ſurgeon, and member of the corporation of ſurgeons in London, 8vo, London.

Dictionaire mineralogique et hydrologique de la France. Tom. 2. 8vo, Paris.

Methode familiére pour guerir les maladies veneriennes, avec le recettes des remedes qui ſont propres. Par M. le Fevre, M. D. 12mo, Amſterdam.

Eſſais, ou reflections intereſſantes relatives a la chymie, la medecine, l'oeconomie, et le commerce; avec une diſſertation ſur la queſtion, Si les cauſes des les maladies de l'ame, et de nerfs, ont toujours leur ſiege dans le cerveau? Par M. Oth. Cuil. Struve, 12mo, Lauſanne.

Le ſommeil des plantes, et la cauſe du mouvement de la ſenſitive expliquée. Par M. J. Hill, dans une lettre a M. de Linné, Profeſſeur de Botanique a Upſal; traduit de l'Anglois, 8vo, Geneve.

Collettione iſtorico di caſo cirurgicale. Per M. J. Cavalliné. Florence.

A ſhort account of a ſociety at Amſterdam, inſtituted in the year 1767, for the recovery of drowned perſons; with obſervations, ſhewing the utility and advantage which would accrue to Great Britain from a ſimilar inſtitution, extended to caſes of ſuffocation by damps in mines, choaking, ſtrangling, ſtifling, and other accidents. By Alexander Johnſton, M. D. 8vo, London.

Richardi Mead Monita et praecepta medica, permultis annotationibus et obſervationibus illuſtrata, auctore Clifton Wintringham, M. D. C. M. L. et R. S. ſocio, Equite aurato, et medico regio olim et valetudinarii proviſi in uſum Britannorum apud exteras gentes bella gerentium medico et praefecto, in 2. tom. 8vo, Londini.

Medical conſultations on various diſeaſes, publiſhed from the letters of Thomas Thompſon, M. D. phyſician to his late Royal Highneſs Frederick Prince of Wales, 8vo, London.

A deſcription of the human eye, and its adjacent parts, together with their principal diſeaſes, and the methods propoſed for relieving them, by Joſeph Warner, F. R. S. and ſenior ſurgeon to Guy's Hoſpital, 8vo, London.

Free thoughts on apothecaries and empyrics. With an appeal to the impartial public, recommending a different mode of paying apothecaries, 8vo, London.

Conſiderations on the uſe of injections in the gonorrhoea, by William Cribb ſurgeon in High Holborn, and member of the corporation of ſurgeons in London, 8vo, London.

Medical eſſays. By John Armſtrong, M. D. phyſician to his Majeſty's army, 4to, London.

De anima medica praelectio ex Lumleii et Caldwalli inſtituto, in theatro collegii regalis medicorum Londinenſium ad ſocios habita die Decembris 16to, anno 1748. A Fran. Nichols, M. D. F. R. S. et Med. Reg. ord. Editio altetera, notis amplioribus aucta. Cui acceſſit diſquiſitio de motu cordis et ſanguinis in homine nato et non nato, tabulis illuſtrata, 4to, London.

Traité des eaux minerales de Verduſan, connues ſous le nom d'eaux minerales de Caſterra Vivent; avec leur analyſe, leur proprieté, et leur uſage dans les maladies, fait par ordre du gouvernment. Par M. Raulin, M. D. membre de la ſocieté royal de Londres, &c. 12mo, Paris.

Opuſcules mathematiques, ou memoires ſur differents ſujets de geometrie, de mechanique, d'optique, d'aſtronomie, &c. par M. d'Alembert de l'academie royale de ſciences, ſecretaire perpetuel de l'academie Françoiſe, 8vo, Paris.

Beobachtungen und muthmaſſengen, &c. *i. e.* Conſiderations and reflections on the *aurorae boreales*. By M. J. E. B. Weideburg, Jena.

Dſchurnal fur die liebhaber des ſteinreichs, &c. *i. e.* A journal for the lovers of lithology and conchyology. By M. J. S. Schraeter, tom. I. Weymar.

Obſervationes botanicae. Auctore Chriſt. Ethrenfred Wiegel, M. D. Graſſvald.

Bericht und bedenkin die kriebelkrankheit betreffend, &c. *i. e.* Advice and conſultations concerning the Raphania, ſent by the phyſicians at Schelſwig to the royal chamber at Copenhagen, with an anſwer from the college of phyſicians there. Copenhagen.

Acta Helvetica phyſico-mathematico-botanico-medica, vol. 7. 4to, Baſle.

Ludwig's abhandlung von den erd. aepfelen. &c. *i. e.* A diſſertation on potatoes. By A. J. Ludwig. Berne.

Vermiſchte beobachtungen, &c. *i. e.* Miſcellaneous obſervations on the practice of phyſic. By Dr Hirſchel. Berlin.

Diſſertationes medicae, quas ex auctoritate reverendi admodum viri, Gulielmi Robertſon, SS. T. P. Academiae Edinburgenae Praefecti; nec non ampliſſimi ſenatus academici conſenſu, et nobiliſſimae facultatis medicae decreto; pro gradu doctoratus, ſummiſque in medicina honoribus et privilegiis rite et legitime conſequendis; eruditorum examini ſubjecerunt,

Bartholomaeus Parr, Britannus, De Balneo.

Georgius Logan, Carolinenſis, De morbis infantium arcendis et curandis.

Gulielmus Ball, Virginienſis, De tabe meſenterica.

Joſephus Dimſdale, Britannus, De morbis cutaneis.

Gulielmus Hamilton, Britannus, De anaſarca.

J. Daniel Knolton, Philadelphienſis, De pertuſſi.

Joannes Taylor, Anglus, De cauſis reſpirationis difficilis.

Henricus Hart, ex Inſula Sancti Chriſtophori, De anaſarca.

CON-

CONTENTS.

Leak on the Child-bed Fever 227
Bergius, De Cremore Tartari 243
Hannes, De Convulſionibus Balneo frigido ſanatis 245
Rueff, De Hydrope pectoris 248
Stolle, De Sarco-hydrocele 251
Linkius, De Scabie epidemica 259
Percival's Experimental Eſſays 264
Henry's Experiments on Magneſia, &c. 277
Spalanzani dell'azione del cuore 287
Macquer ſur la Reſin Caoutchouc 293
Parr, de Balneo 297
Medical Obſervations 306
Medical News 320
Liſt of New Books 330

MEDICAL

AND

PHILOSOPHICAL

COMMENTARIES.

By a SOCIETY in EDINBURGH.

Perlege quodcunque eſt. Quid epiſtola lecta nocebit?
Te quoque, in hac aliquid, quod juvet, eſſe poteſt.
His arcana notis terra pelagoque feruntur.

OVID.

VOLUME FIRST.

PART IV.

LONDON
Printed for J. MURRAY, No. 32. Fleet-ſtreet;
KINCAID & CREECH, and W. DRUMMOND, *Edinburgh*;
and T. EWING, Capel-ſtreet, *Dublin*.

M,DCC,LXXIII.

MEDICAL

COMMENTARIES.

SECT. I.

An Account of Books.

I.

Caroli Strack, M. D. *et in Univerſ. Mogunt. Inſtitut. Med. Profeſſor. &c. Obſervationes Medicinales de Colica Pictonum, maximeque ob Arthritidem.* 12mo, Francofurti.

IN the year 1765, Dr Strack threw out ſome conjectures with regard to the colica pictonum, which were publiſhed in the Journal de Medecine of Paris. The many obſervations which, ſince that time, have occurred to him on this ſubject, have ſerved to confirm his former opinion, and have induced him to publiſh profeſſedly upon it.

it. He ſets out with obſerving, that many different opinions have been entertained with regard to the cauſe of this diſeaſe. By ſome, it has been alledged to ariſe from lead and its preparations; by others, from copper, antimony, and different paints; and by a third ſet, from acid apples and pears, or the liquors prepared from them. In conſequence of theſe varieties in opinion, different names have been aſſigned to this diſeaſe, and different plans of cure have been propoſed. Our author, having obſerved many people attacked with this diſeaſe, who had never been expoſed to any of theſe cauſes, was led to form another opinion. He thinks that the colica pictonum is in general to be aſcribed to the depoſition of gouty matter on the inteſtines, and that the cure is to be regulated accordingly. In confirmation of this opinion, and of the propriety of the practice founded upon it, we are, in the ſecond chapter, preſented with an account of near twenty caſes ſucceſsfully treated.

The different caſes which he has related are very much ſimilar to each other. In moſt of them, the ſymptoms of violent colic, alternating with fixed pains in the extremities, had recurred at uncertain intervals for many years. From all theſe ſymptoms, the author informs us, his patients were perfectly relieved by the uſe of warm bathing, the decoction of woods, and crude antimony.

After this confirmation of his own opinion, our author, in the third chapter, proceeds more particularly to examine the opinions entertained by others. To prove that the colica pictonum does not ariſe from copper, as ſome have ſuppoſed, he adduces two caſes in which copper was taken, where there aroſe violent colics indeed, but by no means of that kind which is the ſubject of this diſſertation.

He is of opinion, that the Devonſhire colic, which he allows to be the true colica pictonum, has been improperly aſcribed to cyder, as, in many countries where cyder is very much uſed, this diſeaſe is hardly known to exiſt. Neither can he agree to the opinion of Tronchin, that this diſeaſe ariſes from antimony, as he has found antimony a powerful remedy for it.

In the laſt place, he examines the opinion of its ariſing from lead. In ſupport of this, Henckel, Baker, de Haen, and many other able authors, have written. To this cauſe, however, our author objects, that he has had opportunities of ſeeing numbers expoſed to the ſteams of lead, who were never affected by it, and that it has often been remarked to be contagious; which he himſelf had a particular opportunity of obſerving in the city of Mentz, in the year 1770. Theſe circumſtances, he thinks, are inconſiſtent with the ſuppoſition of its ariſing from lead. He allows, however, upon the authority of thoſe facts adduced by the writers above mentioned, that one ſpecies of the colica pictonum may ariſe from lead; but he obſerves, that all thoſe which have fallen under his own obſervation were evidently to be aſcribed to arthritic miaſmata. In the fourth chapter, therefore, he proceeds to point out thoſe marks by which this ſpecies of the colica pictonum may be diſtinguiſhed.

When violent pain in the extremities, after producing tophi in the articulations, and leaving its former ſeat ſuddenly, attacks the belly, the diſeaſe, he tells us, is obvious. But, if the pain attack the belly in the beginning, it is not ſo eaſy to diſtinguiſh whether it ariſes from gout or not. The chief marks which he points out for this purpoſe are the following: The abſence of other cauſes which may be ſuppoſed capable of inducing the diſeaſe; the abſence of the ſymptoms of fever and inflammation; a yellowiſh or olive complexion;

plexion; a lead-coloured ring round the eyes; difficulty of breathing, and great wearineſs after ſlight exerciſe; a greater degree of fatigue after ſleeping than before it; the ſweat burning the ſkin in the ſame manner as if it had been covered with warm aſhes; a miliary eruption without any manifeſt cauſe; a ſenſe of titillation on the brow, as if a ſmall inſect were creeping upon it; and the urine of a whey-colour, depoſiting a white, light, fatty ſediment.

The author concludes this treatiſe with ſome obſervations on the different exits which gouty matters ſind from the body; as, by attention to theſe, we can beſt determine by what means the diſeaſe muſt be cured. The chief exits, he tells us, are by ſweat, urine, or an abſceſs, very rarely by ſtool. When there is any tendency to a diſcharge in the firſt of theſe ways, he ſtrongly recommends aromatic decoctions, warm bathing, and crude antimony.

When gouty matter finds an exit by the urine, the author tells us, that the urine diſcharged is in general of a whey-colour, or reſembles water with a mixture of milk in it. When this happens, he recommends the employment of diuretics. Another

other manner in which the gout terminates, is, he tells us, in the way of abſceſs. When this happens, he adviſes that the ulcer be kept long open, and that, in the mean time, thoſe remedies be employed which have already been recommended as ſerviceable in the gout.

II.

Chirurgical Obſervations and Caſes, by William Bromfeild *Surgeon to her Majeſty, and to St George's Hoſpital.* 2 vols, 8vo, London.

IT is univerſally allowed, that, of late years, the art of ſurgery has been much improved. In the treatiſe now before us, the author ſets out with aſſigning many reaſons for theſe improvements. After this, he ſtrongly recommends the uſe of ſudorific opiates in concuſſions of the brain. Thoſe which he propoſes are Dover's powder, and a mixture of antimonial wine and thebaic tincture, which he terms the *tinctura anodyna antimonialis*. To this practice he was led, from being informed, that, in concuſſions of the brain, and fractures of the ſkull, ſudorifics had been ſucceſsfully employed by an empiric; from obſerving that the common method of treating theſe complaints by repeated blood-letting in general proves fatal; and from reflecting that opium, by removing ſpaſm, may take off inflammation, and, by attenuating the blood, may promote abſorption. In confirmation of the propriety of this practice, four caſes are ſubjoined, in which it was uſeful.

Mr Bromfeild next points out the advantages of intercoſtal iſſues in complaints of the thorax. Where there is a fixed pain in the thorax, he adviſes that a drain be made in the interſtice between two ribs, as near the ſeat of the pain as poſſible. When there is no fixed pain, he recommends an iſſue between the ſixth and ſeventh of the true ribs, about half way between their articulation with the vertebrae, and their connection with the ſternum. He likewiſe recommends iſſues for the diſcharge of humour from the brain; but he diſſuades us from the practice, which has often been recommended, of applying cauſtics on the ſagittal ſuture. Where, in conſequence of violent concuſſions, ſymptoms remain which may be ſuppoſed to proceed from extravaſation, he recommends, as the beſt mode of diſcharge, an inciſion along the aditamentum of the temporal ſuture.

In the ſecond chapter, the author treats of amputation. On this ſubject, he ſets out with ſome remarks on the cauſes which may require the operation. In mortification of the extremities, he diſſuades us from having recourſe to the operation, till a ſuppuration be come on. Where amputation is performed for an abſceſs or caries in the joint, he adviſes an iſſue in the other extremity, before the ſtump be healed. He cautions us againſt being haſty in performing amputation for compound fractures, as he has ſeen caſes, which appeared very deſperate, cured by the uſe of long ſplints. When amputation is propoſed for white ſwellings, he adviſes that inquiry ſhould be made with regard to the cauſe of the complaint; and, if it be found to proceed from a ſcrophulous habit, he diſſuades us from having recourſe to the operation, as the diſeaſe will infallibly break out in ſome other part.

In a ſubſequent part of this treatiſe, ſome obſervations are offered on the operation of amputation, an account of which may not be improper in this place. After a minute deſcription of the neceſſary apparatus, and of the different ſteps of the operation, he treats of the methods of obviating a haemorrhage. He warmly recommends the tenaculum, in preference to the needle, for taking up veſſels, as, by this means, the nerve will not be included with the artery, and a train of dangerous and diſagreeable ſymptoms avoided. Inſtead of a ſlip of linen, for pulling up the muſcles while we apply the ſaw, he recommends a piece of leather, about ſixteen or eighteen inches long, and of a proportional breadth, which is leſs apt to entangle the teeth of the ſaw.

In amputating below the knee, the author adviſes us to ſave as much of the leg as poſſible, as by this means a leather leg may be uſed, and the motion of the knee preſerved, which he eſteems much preferable to reſting the knee upon a wooden leg. Hence he directs, that, unleſs in caſes of compound fractures, where there is reaſon to ſuſpect that the bone is ſplintered higher than the place where the wound is made, the leg ſhould always be taken off as near the ancle as circumſtances will admit.

Mr Bromfeild likewiſe propoſes a method of amputating at the ſhoulder, which is much the ſame with that of Mr de La Faye. He recommends, however, that the external flap ſhould be made ſhorter than De la Faye had propoſed; and, contrary to all former opinions, directs, that the blood-veſſels ſhould be left very long; as by this means the nutrition of the ſhoulder will be preſerved, while at the ſame time no inconvenience will ariſe from the length of the veſſels, as from their elaſticity they will ſoon retire within the fleſh.

In the third chapter, the author treats of tumours. Theſe, he obſerves, have been claſſed under two general heads; tumours from fluxion, which comprehend all thoſe of the inflammatory kind; or from congeſtion, which comprehend the indolent ſwellings. The cure, he obſerves, is to be attempted, either by diſpelling them, or by bringing them to ſuppuration. With the firſt intention he recommends gentle antiphlogiſtic purgatives, and ſaturnine applications to the part affected. In forwarding ſuppuration, he obſerves, that, from violent circulation, ſphacelus will enſue; and, on the contrary, from languid circulation, an anthrax. The pulſe therefore will chiefly direct us, both with regard to evacuations, and the proper regimen. He is of opinion, that the ſeat of circumſcribed abſceſſes is in the adipoſe, and not, as has generally been imagined, in the cellular membrane. Abſceſſes, when formed, are to be opened either by inciſion or cauſtic. Each of theſe methods he tells us, will, from circumſtances, at different times, claim the preference. In large abſceſſes, cauſtics cannot be applied to the whole extent of the tumour, and in ſmall ones they will deſtroy more of the ſkin than we would wiſh. But, in indolent tumours, large cauſtics, from the tendency which they have to promote ſuppuration, are to be preferred. The author concludes this ſubject, by laying it down as a general rule in all operations in ſurgery, to ſave as much of the ſound ſkin as is poſſible, and not to leave any part of that which is diſeaſed.

The ſubject of the fourth chapter is Eryſipelas. The general plan of treating eryſipelas is to abate the inflammation by bleeding, cooling purges, and an antiphlogiſtic courſe. But, previous to this, Mr Bromfeild recommends that the cauſe of the diſorder be inquired into, and, if it be critical, it is by no means to be repelled. He tells us of an eryſipelas of the head, which was epidemic for two years, in which it was neceſſary to employ cordials and the Peruvian bark; as an antiphlogiſtic courſe very generally proved fatal.

Mr Bromfeild next treats of the anthrax, which he tells us has generally been defined, a highly inflammatory tumour, the effect of peſtilential particles lodged in the blood. He divides theſe tumours into the peſtilential and non-peſtilential. And theſe laſt he again ſubdivides into thoſe which proceed from a quantity of highly inflamed blood, and thoſe which are the effect of a putrid and malignant fever. It is with regard to theſe two ſpecies only, that our author has had an opportunity of making any obſervations; and the treatment adapted to each is, he tells us, extremely different. In the malignant, the primae viae ſhould be duly emptied, and then recourſe muſt be had to antiſeptics, cordials, and volatiles. The non-malignant require large and repeated evacuations, as well as a general antiphlogiſtic regimen. But, even in this ſpecies, if, after the tumour comes to ſuppuration, it diſcharge a thin ichor, the Peruvian bark is, he tells us, almoſt always a ſpecific.

In the ſixth chapter, the author treats of the reduction of the os brachii when diſlocated. The frequency of diſlocations here, he aſcribes to the particular apparatus of the joint, and the expoſure of the top of the ſhoulder to accidents. The head of the os brachiale, he obſerves, when diſlocated, will ſometimes be thrown into the axilla; at other times, under the pectoral muſcle and clavicle; ſometimes outward and backward, but rarely upward. After enumerating the ſpecies of diſlocation, the author next points out the ſigns by which diſlocation is to be diſcovered, and the common methods practiſed for reduction. One of the principal circumſtances which he ſuggeſts as an improvement here, is, that the ſcapula be puſhed directly backward, in place of forward and downward, as has commonly been directed. There are ſome caſes, in which diſlocations of the arm, though eaſily reduced, will, from laxity of the muſcles paſſing over the ſhoulder-joint, happen again, in conſequence of the ſlighteſt accident. In theſe, beſides proper ſupport for a conſiderable time, the author directs the repeated application of bliſters round the ſhoulder.

The firſt volume is concluded with an appendix, containing miſcellaneous obſervations, which ſeem chiefly to have been introduced with a view of confirming the preceding doctrines.

The author ſets out, in the ſecond volume, with treating of the diſeaſes of the bones. He firſt conſiders what is uſually called pain in the bones. This he refers to an affection of the perioſteum, as he conſiders the bones as altogether inſenſible, and conſequently not liable to pain. This affection he divides into two kinds, the venereal and the rheumatic: In the former, the pains are only ſevere in the night, and are, in general, confined to the moſt ſolid part of the cylindrical bones;

whereas, in the latter, they are almoſt conſtant, and more frequently attack the joints or large ends of bones. He aſcribes caries to a diviſion of the nutrient veſſels of the bones, either by external injury, or an acrimonious ſtate of the fluids. Where the deſquamation of a carious bone is expected to be tedious, the cure, he tells us, may frequently be haſtened, by taking out the diſeaſed parts with the head of a trepan, attending, however, at the ſame time, to the general habit, by the uſe of proper medicines internally.

Tumours of the bones often ariſe from venereal cauſes, and are denominated tophi, gummi, or nodes. The tophi, Mr Bromfeild tells us, ariſe from a chalky ſubſtance, depoſited between the oſſeous fibres of the bones, while the nodes are owing to an inſpiſſated humour obſtructing the nutrient veſſels of the bones, but without extravaſation. In the laſt caſe, when the perioſteum is thickened, but the bone itſelf not affected, a courſe of mercury, he informs us, will often produce a perfect cure. The very violent pain, which ſometimes accompanies ſwellings of this kind, and which probably proceeds from the extenſion of the perioſteum, will almoſt always be relieved by a ſimple inciſion through that membrane, for the whole length of the node. Such an inciſion, he alledges, will ſeldom be attended with exfoliation, which the tedious method of deſtroying theſe tumours by cauſtic is very ready to induce.

In the ſpina ventoſa, the ſeat of the diſeaſe, according to our author, is in the medulla of the bone. It becomes inflamed, in conſequence either of an internal cauſe, or external injury. Matter is at laſt formed, which by degrees corrodes the bone, and makes its way towards the ſkin. When it is come ſo far, that fluctuation can be obſerved, he adviſes, that the matter ſhould be immediately diſcharged by inciſion. If, at the ſame time, proper medicines be given, the children well ſupported, and the parts kept clean and dry, patience and perſeverance will frequently effectuate cures, not otherwiſe to be brought about.

The rickets, of which Mr Bromfeild treats, in his ſecond chapter, depend, he tells us, on a general laxity of the ſyſtem, together with a particular affection of the bones, which are then always found more or leſs in a ſoft ſtate. In conſequence of this, the bones are rendered ſometimes ſo flexible, as to be affected by every external preſſure, even the moſt ſlight; and ſometimes merely by the action of different muſcles. A very extraordinary caſe of ſuch flexibility in the bones, which was communicated to the author by Mr Sue, ſurgeon to the Charitè at Paris, is here narrated. In the cure of the rickets, as the meſenteric glands are in general affected, after the inteſtines are thoroughly emptied, he recommends the uſe of purified quick-ſilver, which he aſſures his readers is a moſt efficacious remedy in removing ſuch obſtructions. Afterwards, in order to ſtrengthen the patient, he directs the uſe of the cold bath and Peruvian bark.

The author next treats of contuſions of the ſynovial glands. With regard to glands in general, he aſſerts, that there is no difference between the conglobate and conglomerate glands: For, ſays he, the ſame gland will be found in one animal of the conglobate, and in another of the conglomerate kind. And even in the human ſpecies, the ſame gland is in the foetus of the conglomerate kind, which afterwards becomes conglobate, as is the caſe with the kidney. Contuſions of the ſynovial glands of the joints are very frequent. They are particularly apt to happen to thoſe lodged in the acetabulum of the oſſa innominata,

from

from falls upon the knee or the great trochanter. Accidents of this kind are chiefly to be detected by great pain of the joint, in conſequence of falls, where neither fracture nor diſlocation can be perceived. In ſuch caſes, Mr Bromfeild recommends repeated bleeding, together with low diet and gentle purgatives. But what he has found more effectual than every other method, is, keeping the rectum conſtantly empty by clyſters. This, by removing every kind of preſſure from the veſſels within the pelvis, from which the glands of the joints are ſupplied, gives the greateſt aſſiſtance in removing the inflammation.

The treatment of fractures is the next ſubject of conſideration. If a ſurgeon be called immediately after a fracture, he may inſtantly proceed to the reduction; but, if the ſwelling be conſiderable, the limb, Mr Bromfeild tells us, ſhould be allowed to reſt till it be entirely gone. The fracture being reduced, and ſlips of paſte-board, ſocked in aqua ſaturnina, being applied, and retained by a roller not very tight, he adviſes that the limb ſhould be laid in a bent poſture, to relax the different muſcles as much as poſſible.

In fractures of the patella, it has been a matter of diſpute among practitioners, whether the ſeparated pieces of bone ſhould be brought into contact and permitted to unite, or ſhould merely be made to approach each other, but not ſo cloſe as to endanger their union? The author imagines that the directions given by both parties are equally faulty. He adviſes, that no bandage ſhould be applied for the firſt eight or ten days, or till the ſwelling and tenſion of the parts be entirely ſubſided: But after that, the ends of the bones may with the greateſt ſafety be brought into contact and permitted to unite. To this method, it has been objected by ſome practitioners, that an ancyloſis of the knee will be induced, by part of the oſſific matter, intended for the callus, dropping into the joint, which they alledge would not happen, if the ends of the bone were not brought into contact. But this, the author tells us, occurs only when the leg has been kept extended and void of motion for too long a time; two months or ten weeks being the common period. If, however, by the end of the third week, the patient be permitted to hang his leg down, beginning with the ſlighteſt deviation from the extended ſtate, and every day continuing to bend it more and more, the callus will gradually be extended, the interior ſurface of the patella rendered

red perfectly ſmooth and equal, and a proper motion of the joint with its uſual ſtrength will be obtained.

A fracture of the fibula is conſidered by many ſurgeons as a thing of little conſequence; but our author aſſerts, that the greateſt attention is here requiſite; and that lameneſs as often occurs from miſmanagement in this caſe, as from a fracture of any bone whatever. In applying the proper bandages, he adviſes that particular care be taken that it be done in ſuch a manner, as to prevent the fractured ends of the bone from preſſing upon the tibia. The ſame caution is likewiſe neceſſary in the treatment of fractures of the radius and ulna. In theſe caſes, broad long ſplints only ſhould be applied. They ſhould be long enough to ſupport the hand, and hinder its pronation and ſupination; and broad enough to prevent the tapes from preſſing on the bone, in the ſpace between the edges of the paſte-board.

In fractures of the ribs, an emphyſematous ſwelling is no uncommon ſymptom. This is ſometimes ſo conſiderable as to extend over the whole body, while, at the ſame time, a difficulty of breathing frequently takes place to ſuch a height as to endanger ſuffocation. Theſe ſymptoms evidently ariſe from the lungs being wounded, together with the pleura, by the extremities of the fractured rib. By this means, the air finds a paſſage into the cavity of the thorax, and into the ſurrounding cellular membrane. The cure conſiſts in giving a free exit to the air. For this purpoſe, Mr Bromfeild adviſes the paracenteſis of the thorax, which was firſt propoſed by Dr Monro, and afterwards by Mr Hewſon, although our author ſeems to imagine that it had before been hinted at by Paré.

In the treatment of fractures of the extremities, whether of the ſimple or compound kind, the placing of the limb in that poſition, in which the muſcles will be moſt relaxed, is greatly recommended. And Mr Bromfeild informs us, that it is now near thirty years ſince he inculcated that method in his public lectures. He recommends, in very ſtrong terms, the uſe of the ſplints invented by Mr William Sharp, as, by means of them, the limb can be kept perfectly eaſy, and at the ſame time ſo firm, that the patient can be removed from one place to another, without danger. When theſe cannot be had, he recommends ſtrong paſte-board, ſoaked in water or vinegar, as it very readily takes the ſhape of the limb, and when dry keeps it perfectly firm.

In treating of the ſtone, Mr Bromfeild ſets out with a deſcription of the parts ſubſervient to the ſecretion, reception, and expulſion of urine, and of the parts which are cut in the operation of lithotomy. He imagines that calcalous complaints ariſe from the blood being overloaded with thoſe earthy and cretaceous particles, which, even in a natural ſtate, it always contains in a certain proportion. He accounts for its occurring more frequently in the kidneys and bladder than any other part, from the great quantity of that ſort of matter which daily paſſes off by theſe organs, and from the ready nucleus for ſtone, which is afforded by a ſmall quantity of gravel reſting in the bladder. From this ſuppoſition too, the author accounts for women being ſo ſeldom afflicted either with the ſtone or the gout; as, he alledges, that, in them, when the bones are arrived at their full growth, the redundant cretaceous particles are carried off by the uterine diſcharge. In confirmation of this opinion, he mentions two caſes in which a cretaceous concretion, about the ſize of a child's head, was found in the cavity of the uterus in two different women. This chalky matter, he concludes,

cludes, muſt certainly have been brought there by the blood veſſels which open into the cavity of the womb.

Mr Bromfeild puts no faith in the power of ſolvents of the ſtone, whether taken by the mouth or injected into the bladder. He is even of opinion, that in both ways they will frequently do miſchief; as, by occaſioning delays, diſeaſes of the bladder may occur from which the patient's chance of recovery will be diminiſhed.

When treating of the operation of lithotomy, he mentions ſeveral mothods which have been propoſed by others, and concludes with the account of one peculiar to himſelf, which he has practiſed for ſeveral years paſt, and ſtill continues to prefer. In the common lateral operation, which is at preſent moſt frequently performed, Mr Bromfeild alledges, that the gorget, the cutting inſtrument which is made uſe of, ſeldom, if ever, cuts the proſtate gland properly; and as its ſhoulders are generally high, there is a riſque, by puſhing it forcibly forward, of ſeparating or tearing the proſtate gland from the membranous part of the urethra. To avoid all danger of this kind, he adviſes that as much of the proſtate gland as we would wiſh to divide ſhould be cut with the ſcalpell;

pell; and this, he aſſures us, can be done with the greateſt ſafety. He tells us, however, that there is no neceſſity for dividing the whole gland. About two thirds of it next to the membranous part of the urethra being cut through, the remaining ſound part will in general yield ſufficiently for the extraction of moſt part of ſtones; and, by this means, the patient will always be enabled to retain his urine: So that there will be little riſque of fiſtulous ulcers remaining after the operation.

For ſuch as are afraid of cutting ſo deep, as is here directed, with the common ſcalpell, he recommends, either the biſtourie caché of the French ſurgeons, or the double gorgeret, an inſtrument of his own invention. He likewiſe propoſes ſome improvements upon the forceps. When ſtones are large and ſoft, he propoſes a contrivance for preventing a great degree of preſſure on them, by means of an iron pin paſſing through a female ſcrew in one branch of the forceps, and reaching very nearly in contact with the other, while the ſtone is included in the forceps. When the ſtone is rough, in order to prevent its lacerating the parts, two additional blades are propoſed, which, he tells us, may eaſily be introduced, one by one, and afterwards fixed at the axis. In this way, the ſtone comes to be in a manner incaſed, and may be extracted with ſafety.

Mr Bromfeild is of opinion, that the ſucceſs of lithotomy depends much upon the management of the patient before and after the operation. Among other things he recommends the warm bath as a proper preparatory ſtep; and he enjoins it as abſolutely neceſſary after the operation, if the pain in the wound ſhould be great, the abdomen tenſe and hard, the ſkin dry, the fever ſmart, and no diſcharge by urine.

In the fiſtulous openings that ſometimes remain after this operation, when they are of a ſmall ſize, and when bougies have failed in the cure, the author tells us, that he has often ſucceeded, by introducing a knitting needle, pretty hot, which, by making the ſides of the canal ſwell, brings them into contact, and thus diſpoſes them to unite.

In extracting the ſtone from women, two methods have been propoſed; either by dilatation, or by diviſion of the urethra. When the former of theſe ways is reſolved upon, a new method of doing it is recommended by our author, which, from his own experience, he has found ſucceſsful. The cloſed extremity of the appendicula inteſtini caeci of any ſmall animal, being introduced into the bladder, by means of a blunt directory, and a proper length of the open end being left out, it is to be filled with warm water, by means of a ſyringe, and the water prevented from returning, by a proper ligature. A twiſt or two is then to be made, upon that portion of the appendicula which was left out, ſo that the cloſed end may be diſtended; and thus, a twiſt or two being given from time to time, a conſiderable dilatation may, he tells us, be produced, without excoriation, or much pain; both which circumſtances, in the common method, cannot be avoided.

When the method by inciſion is preferred, it may, he tells us, be done, by introducing a ſtraight directory, by the urethra, into the bladder, and paſſing the double gorgeret along it, in ſuch a manner as to cut the neck of the bladder on the left ſide, ſlanting obliquely downwards. The operation is afterwards to be finiſhed in the ſame manner as in men.

This treatiſe is concluded by ſome obſervations on different diſeaſes of the urethra. In total ſuppreſſions of urine, from whatever cauſe, Mr Bromfeild tells us, that we may frequently ſucceed in the introduction of the catheter, by firſt attempting the introduction of a bougie, which may often be done, when the other cannot.

Tumours frequently ariſe in the perineum, in conſequence of a gonorrhoea being ſuddenly ſuppreſſed; and when they are allowed to ſuppurate, and break outwardly, very troubleſome fiſtulous openings are often the conſequence. This, the author tells us, may, in almoſt every caſe, be prevented, by the introduction of bougies before the breaking of the abſceſs, which will bring on a ſuppuration internally. Swellings of the teſticles, in conſequence of the ſuppreſſion of gonorrhoea, may likewiſe, he tells us, be frequently removed, merely by the uſe of bougies, from their inducing a return of the diſcharge. When bougies are uſed, he inculcates ſtrongly, that care be taken to ſecure them properly; becauſe, from want of attention to this circumſtance, diſagreeable conſequences have ſometimes occurred.

III.

Memoire ſur les Abces critiques ; par J. G. Acrel. *Vid. Memoires de l'Académie Royale des Sciences de Stockholm, traduit par* M. De Keralio, 4to, Paris.

THE author of this memoir furniſhes us with an inſtance, in which very fatal conſequences enſued from opening abſceſſes formed externally. When the French army returned from Bohemia, a putrid fever prevailed in it, which ſeemed to be occaſioned by exceſſive cold and great fatigue, ſuperadded to the vernal tertians. Upon reaching the frontier hoſpitals, the ſick enjoyed a more favourable ſituation. Abſceſſes were then formed behind the ears, in the arm-pits, and other parts of the body, and, by the appearance of theſe, the febrile ſymptoms were evidently abated.

The firſt method practiſed with theſe abſceſſes was, to open them upon being fully maturated. But, when this was done, the patients felt themſelves much weakened ; their ſymptoms returned ; and they in general died within eight days. In ſome caſes, after the fluctuation of matter could be diſtinctly felt in theſe tumours, it was diſcharged by ſtool, by ſpitting, or by the noſe; and, in theſe caſes, the patients in general recovered.

The phyſicians, therefore, were naturally led to follow the cure pointed out by nature. They no longer opened theſe abſceſſes. They neither attempted to promote ſuppuration by external applications, nor to retard it by means of evacuants. But, when the abſceſſes were fully maturated, they purged their patients with manna, rhubarb, caſſia, or Epſom ſalt. It was obſerved, that, by the time they had taken the third doſe, the ſtools, in general, became purulent, the patients felt themſelves eaſier, the abſceſſes diminiſhed, and at length entirely diſappeared. For diet, they had good ſoup, without ſalt or ſpice; and their drink conſiſted of mucilaginous ptiſanes. By this treatment almoſt all who were affected with the diſeaſe recovered.

IV.

Memoire ſur l'Uſage du Stramonium, par J. L. Odhelius. *Vid. Memoires de l'Académie Royale des Sciences de Stockholm, traduit par M.* De KERALIO. 4to Paris.

FOurteen epileptic patients in the royal hoſpital at Stockholm were treated with pills of the ſtramonium. Of theſe, eight were intirely cured, five had their ſymptoms mitigated, and one only received no relief. The greateſt part of theſe patients, upon beginning the uſe of this remedy, were affected with confuſion in their heads, dimneſs in their eyes, and thirſt; but theſe ſymptoms gradually diminiſhed.

A woman, after child-bed, was ſeized with madneſs, for which no cauſe could be aſſigned. Her menſes continued regular, but ſhe ſhewed evident marks of great ſenſibility of the nervous ſyſtem. Two phyſicians who attended her, after trying other remedies in vain, had recourſe to the ſtramonium. They began her with pills of half a grain thrice a-day, and gradually augmented the doſe, till ſhe took ſix or eight grains in the day. The good effects of this remedy ſoon appeared. It was not long before ſhe recovered her reaſon, which ſhe enjoyed perfectly for many years afterwards.

A woman, after being for nine years affected with an itchy eruption at the points of her fingers, had it cured by means of plaſters. This cure was followed by fluor albus, attended with many troubleſome ſymptoms, the principal of which were, oppreſſion at her breaſt, a tendency to delirium, vomiting, and frequent pains in her belly. The ordinary medicines employed in ſuch caſes were tried in vain; and attempts were made to recall the eruption to her fingers, but to no purpoſe. But, by the uſe of ſtramonium pills, her ſymptoms were greatly abated, her appetite reſtored, and her general habit and ſtrength much recruited.

V.

Memoire ſur maux guéris par l'Electricité, par J. Lindhoult. *Vid. Memoires de l'Académie Royale des Sciences de Stockholm, traduit par* M. De Keralio. 4to, Paris.

I. *Deafneſs.*

A man was affected with deafneſs in his left ear, accompanied with conſtant tinnitus. For this complaint, he was electrified, and in two or three minutes his hearing was perfectly reſtored.

A man, for thirty years, had his hearing conſiderably impaired; and, for ten years, he had been affected with tinnitus and pain in the teeth. By the uſe of electricity, he was freed from all theſe complaints.

A young man, about twenty years of age, was afflicted with very violent colics, during which, there was a diſcharge of blood from his ears. This impaired his hearing; but by electricity it was reſtored.

A girl ſeven years of age, who had been deaf, and of conſequence dumb, from the time of her birth, was electriſied. Her hearing was gradually reſtored; and ſhe ſoon learned to ſpeak.

A young man, about nineteen years of age, falling into water through ice, contracted a dullneſs of hearing; from which he was ſoon recovered by electricity.

II. *Pains in the Limbs.*

A ſtone-hewer, after being long ſubject to attacks of epilepſy, was at length affected with pain and ſtiffneſs in his feet and knees. By the uſe of electricity, for a few days, he became able to work as before.

A young man was ſo afflicted with pain in his right thigh, as to be unable even to turn himſelf in bed. Upon its being electrified for a few days, he was able to walk out of his chamber, without any uneaſineſs.

III. *Muſcular Contractions.*

A man, whoſe knee-joint had continued bent for ſeveral years, upon being three times electrified, was reſtored to the free uſe of it.

A young man had his right foot bent outwards in ſuch a manner, that he could not walk without a ſtaff. He was electrified for thirteen days. On the thirteenth, he burnt his ſtaff, and never had occaſion to uſe it afterwards.

A girl, about four years of age, contracted a ſlight lameneſs from the ſmall pox. This complaint encreaſed in ſuch a manner, that, by the time ſhe was thirteen, ſhe could not walk without crutches, and barely touched the ground with her toes. After being electrified for twenty days, ſhe could walk without any aſſiſtance.

IV. *Intermittent Fever.*

A gardener, aged thirty-three, wanted to try electricity for an obſtinate quartan, under which he had laboured for a long time. He was accordingly electrified, after which, he ſweated profuſely for ſeveral nights. Upon this, his paroxyſms became leſs ſevere, and at length the fever entirely left him.

We have had, ſays Mr Lindhoult, ſeveral examples of the efficacy of electricity in each of theſe caſes. And it has alſo been employed in palſy of the tongue, weakneſs of ſight, epilepſy, rheumatiſm, colic, and toothach, with equal ſucceſs.

VI.

Memoire ſur l'Uſage Medicinal du Genêt, par J. Odhelius, *medecin du Roi. Vid. Memoires de l'Académie Royale des Sciences de Stockholm, traduit par* M. De Keralio. 4to, Paris.

THE Swediſh army having gone into winter quarters in the year 1759, there appeared among them a catarrhal epidemic fever, which uſually terminated by an imperfect criſis. The feet, legs, and thighs ſwelled, and theſe complaints either continued obſtinate or terminated in a formal dropſy. Attempts were made to ſtop this metaſtaſis by the uſe of purgatives. They frequently occaſioned a watery diarrhoea, but without relieving the ſymptoms. Diuretics were more ſucceſsful, particularly a lixivium of the aſhes of juniper. But this plant being very rare, broom was ſubſtituted in its place, which had a ſtill better effect. From drinking a ſtrong lixivium off broom-aſhes, the urine became abundant, and the ſwellings ſoon diſappeared. By employing, after this, the common means for ſtrengthening the ſolids, many were reſtored to perfect health.

VII.

Recherches ſur les modifications de l'atmoſphere, contenant l'hiſtoire critique du Barometre, et du Thermometre, un traité ſur la conſtruction de ces inſtrumens, des experiences relatives à leurs uſages, et principalement a la meſure des hauteurs, et a la correction des refractions moyennes, avec figures, par J. A. De Luc, *Citoyen de Geneve, Correſp. des Académ. Royale des Sciences de* Paris, *et de* Montpellier, *tome* 1. *4to*, Geneva.

FOR the work now before us, we are indebted to the long continued labour of a moſt illuſtrious philoſopher. In the year 1762, Mr De Luc preſented his manuſcript to the royal academy of ſciences at Paris. It was ſubmitted to the examination of thoſe eminent men, Meſſrs De la Condamine, and De la Lande, who, after attentive peruſal, gave it as their opinion, that it might juſtly be conſidered as one of the greateſt treaſures with which philoſophy had been enriched for many years before. But the author, that he might have an opportunity of ſtill farther confirming, by repeated experiments, thoſe diſcoveries which he had made, kept the work ten years longer in his poſſeſſion, before he would venture to ſubmit it to the judgement of the public. How far it will now ſatisfy the high expectation that has been entertained with regard to it, thoſe who attentively examine the work itſelf muſt determine. All that we can propoſe is, to give our readers ſuch a view of it, as the limits of our publication will allow.

The importance of the barometer, in the ſolution of many queſtions in natural philoſophy, and the difficulties that attend its conſtruction and application for obtaining theſe ends, firſt induced Mr de Luc to turn his attention to the improvement of this inſtrument. He hoped, that thus he ſhould be enabled to give a more exact ſolution of many of thoſe phaenomena which, by means of it, may be elucidated. In the progreſs of his inquiries, finding how intimately the barometer is connected with the thermometer, he has likewiſe beſtowed part of his attention upon this laſt inſtrument. To ſhew the ſtate in which he found the barometer, and to rouze the attention of the public to a ſubject ſo intereſting, he ſets out with a hiſtory of that inſtrument. In this he preſents us with an account of its invention, of the moſt eſſential changes which have been made upon its conſtruction, of the theories which have been formed to explain its phaenomena, and of the principal experiments hitherto made with it.

Few are ignorant, that the barometer was invented in the year 1643, by the celebrated Torricelli, and that he likewiſe pointed out its uſe for diſcovering the weight of the atmoſphere. Soon afterwards, Mr Paſcal hinted at its application for meaſuring the heights of mountains, which was firſt put in practice by Mr Perrier.

In treating of the changes which this inſtrument has undergone, Mr de Luc firſt gives an account of the Torricellian barometer, and then of thoſe invented by Deſcartes, Huygens, Hook, Morland, Bernoulli, Amontons, De Mairan, and Prins. To the account of each he has added ſome obſervations on the advantages and diſadvantages with which it is attended.

A phaenomenon attending barometers, which ſoon attracted the attention of philoſophers, was the light which they often produced, upon the mercury within them being agitated. Upon this ſubject he preſents us with the opinions of Bernoulli, Homberg, De Mairan, Du Fay, and Muſſchenbroeck, who imagined, that it chiefly depended upon ſome particles of fire, introduced, either by the mercury having undergone a preparation, by which ſome ſuch matter might attach itſelf, or by ſome particles of air getting into the upper part of the tube, and carrying along with them the matter of fire. Theſe opinions, however, for many reaſons, he rejects, and inclines to adopt that of Mr Hawkeſbee, who ſuppoſes it to be an electrical phaenomenon. This he endeavours to ſupport, by ſhewing, that thoſe circumſtances which influence the electrical power in glaſs globes, have the ſame effect upon this property of barometers. Muſſchenbroeck had found, that the barometer, in this ſtate, attracted a thread, but ſuppoſed it to depend upon the agitation of the air. This objection, however, has been obviated by Mr Ludolff, in the Berlin Memoirs, who included both the thread and barometer in an exhauſted receiver, and then found the thread attracted in the ſame manner as in the open air. He concludes his remarks on this ſubject with obſerving, that a well conſtructed barometer is in general electrical, but that a barometer may be electrical, and, at the ſame time, contain ſuch a quantity of air, as to render it highly defective, and that a barometer may be very good without being electrical.

He next proceeds to mention the method of exhauſting barometers of their air, by means of boiling the mercury in them. This method, he tells us, was firſt communicated to Du Fay, by a German artiſt, and afterwards put in practice by M. Caſſini de Thury. He repreſents it as very advantageous for correcting the irregularity of different barometers, when placed in the ſame circumſtances; but imagines it has been little followed, from the imperfect directions given concerning it; from the difficulty of the practice; and from its appearing to be but of little conſequence.

He next takes notice of an experiment of M. Plantade, concerning the effects of the different diameters of the tubes employed as barometers. At a thouſand toiſes above the level of the ſea, that gentleman found that the mercury was lower in ſmall tubes than in large ones; but that, above that height, they were all equal. This he attributed to the different weights of the air. But Meſſrs Caſſini and Monnier, upon repeating the experiments, found, that the difference depended upon portions of air remaining in the tubes.

This chapter is concluded with an account of the effects of heat upon the barometer, which was firſt obſerved by Mr Amontons, who gave a rule for correcting it; but Mr de la Hire has contradicted it from his experiments. And both Du Fay and Beigton contend, that it happens only in thoſe barometers which are not perfectly purged of air. But our author thinks they are miſtaken, the foundation of which he afterwards points out, when giving an account of his own experiments. He concludes, therefore, that heat has ſome influence upon the barometer.

Having thus given an account of the invention of the barometer, and of the varieties in the conſtruction of it, the author proceeds, in the third chapter, to treat of the variations which the mercury undergoes in point of height. This, he obſerves, is one of the moſt intereſting phaenomena with regard to the barometer, and has engaged the attention of the moſt eminent philoſophers.

They all agree, that differences in the height of the column of air, and changes in the ſtate of the air itſelf, have conſiderable influence upon it. But, as it is evident that other effects, which muſt neceſſarily proceed from theſe cauſes, and the variations which take place in the barometer, by no means correſpond to each other, cauſes of a different nature muſt neceſſarily be called in: And on this philoſophers have differed much in their opinions. Mr de Luc here preſents us with an account of the hypotheſes of Paſcal, Beal, Garden, Wallis, Liſter, Halley, Garſten, De la Hire, Mariotte, Le Cat, Woodward, Leibnitz, Mairan, Hamberger, Bernoulli, and Muſſchenbroeck. With regard to theſe opinions in general, the author remarks, that, although many of them be founded upon circumſtances which undoubtedly hold to a certain degree; yet they are by no means ſufficient to account for the varieties which occur; and that therefore ſome other cauſe muſt be ſought for.

In the fourth chapter, the author preſents us with a particular hiſtory of the attempts which have at different times been made to aſcertain heights by means of the barometer. The firſt who attempted this was Paſcal. The author ſets out, therefore, with an account of his experiments on this ſubject; after which, he ſubjoins thoſe of Boyle, Mariotte, Halley, Maraldi, Scheuchzer, J. Caſſini, Bernoulli, Le Monnier, Caſſini de Thuri, Horrebow, and Bouguer. The differences among them are very remarkable. To illuſtrate this, a table is ſubjoined, in which we have a diſtinct view of the heights, ſuppoſed by each, to correſpond to determined falls in the barometer. This uncertainty, the author tells us, firſt excited his curioſity. And, as he found authors diſagreeing ſo much, he reſolved, ſhutting every book upon the ſubject, to conſult Nature alone, following her ſtep by ſtep, as far as ſhe would conduct him. Having finiſhed this hiſtory, therefore, he next proceeds, in the ſecond part, to give an account of his own experiments and obſervations.

If the remarks offered in the preceeding hiſtory be well founded, it is by no means ſurpriſing, that barometers, even in the ſame circumſtances, ſhould diſagree in point of altitude. Our author's firſt attention, therefore, is naturally beſtowed on the means to be employed for conſtructing barometers, in ſuch a manner, as to correſpond with each other, and be uniform in their riſing and falling. The principal varieties in barometers, according to our author, depend upon the method of filling the tube, the influence of heat, the level at which it is placed, the form of the tube itſelf, and the poſition and diviſion of the ſcale. On each of theſe ſubjects we are preſented with many experiments to ſhew their influence; and with directions by which the faults reſulting from thence may be corrected.

When a barometer is to be filled, for properly purging it of the air, he recommends that the mercury ſhould be boiled in the tube. This is to be done by turning downwards that extremity of the tube, to which the ſcale is to be fixed, and then holding it obliquely over a charcoal-fire, expoſing the different parts of the tube ſucceſſively, till the boiling takes place.

Heat affects barometers in two ways, either by acting upon the mercury itſelf, or upon the air they contain, if they be not properly purged of it. In the one caſe, it produces a regular elevation of the mercury, and in the other an irregular depreſſion. For the variations occurring in the latter of theſe ways, no ſtandard can be fixed. But, in the former caſe, proper allowance may be made, from determining, by a thermometer, the degree of heat in which the barometer ſtands.

Great care is neceſſary in determining the level of a barometer; and, when a compariſon is to be made, the tubes ſhould be as nearly as poſſible of the ſame diameter.

Faults in barometers often ariſe from the manner in which the ſcale is meaſured, as well as from the diviſions themſelves: Particular attention to both circumſtances, therefore, becomes abſolutely neceſſary. Another circumſtance claiming attention, is the poſition of the barometer when an obſervation is made. With thoſe that are fixed on a wall, attention is neceſſary only, that they be properly placed at firſt: But, with portable ones, Mr de Luc recommends ſuſpending a plumb to them, that we may be better able to judge when they are perpendicular. Another thing neceſſary in making obſervations with barometers, is, that the eye of the obſerver be always upon a level with the mercury. By proper attention to all theſe circumſtances, the author is of opinion, that obſervations made in different places may be compared with each other, and the barometer ſucceſsfully employed for the ſolution of many uſeful problems in philoſophy.

After theſe obſervations on barometers, the author proceeds, in the ſecond chapter of this part, to treat of thermometers. He regrets much the many errors that have ariſen, and the many obſervations that are rendered uſeleſs, by thermometers being differently conſtructed: And he obſerves, that this inſtrument can only be extenſively uſeful, when ſome one ſcale is generally admitted, and all the others are abandoned. He next proceeds to treat of the matter of which they ſhould be formed; and is of opinion, that quickſilver is preferable to every other, becauſe the dilatations which it ſuffers from heat are moſt exactly proportioned to the variations of the heat.

The author next proceeds to give ſome account of the fixed points in thermometers. As theſe are not the ſame in different thermometers, this leads him to give a hiſtory of the principal thermometers which have hitherto been employed. From this it appears, that the temperature at which water freezes, and that at which it boils, are the two fixed points moſt generally adopted. On each of theſe, therefore, he beſtows particular conſideration.

After pointing out the neceſſity of fixing with preciſion the inferior point, he obſerves, that the methods hitherto taken for aſcertaining the degree of cold ſufficient to freeze water are equivocal.

vocal. To prove this, he examines particularly the opinion of Mr Reaumur, who ſeems to have beſtowed the greateſt attention on this ſubject. He propoſes that, for fixing the inferior point of all thermometers, we ſhould employ the temperature of melting ice or ſnow; and he adduces ſeveral experiments to prove, that this point can be aſcertained with greater preciſion than any other.

The ſuperior fixed point, which has in general been adopted, is that of boiling water. This he thinks preferable to that of Mr Reaumeur, who took, as his fixed point, the higheſt degree of heat, of which ſpirit of wine is ſuſceptible, without boiling. But the heat of boiling water, he obſerves, is influenced by ſeveral circumſtances. The firſt which he mentions, is the preſſure of the atmoſphere upon the ſurface of the water, which, at different times, varies conſiderably. To remedy this, he propoſes, that all thermometers ſhould be made when the barometer is at a determined height. For aſcertaining both the inferior and ſuperior fixed points, he directs, that rainwater ſhould be employed, as being moſt free from impurities.

The diviſion of the ſcale of a thermometer, he obſerves, is of itſelf a circumſtance of little conſequence: But it is of importance, that ſcales, which have already been much employed, ſhould be retained. Hence he is for continuing the uſe of thoſe of Fahrenheit and Reaumeur; in the firſt caſe, dividing the interval between the two fixed points into a hundred and eighty; and, in the latter, into eighty equal parts.

In treating of the conſtruction of thermometers, he tells us, that capillary tubes are preferable to others; but that great care ſhould be taken that the calibers be uniform; that the balls bear a proper proportion to the length of the tube; and that very pure mercury be employed for filling them. He is of opinion, that the beſt ſcales, both for thermometers and barometers, are thoſe made of fir.

Hitherto the author has treated of thermometers adapted to the purpoſes of philoſophers: But, in the third chapter of this part, which concludes the volume now before us, he offers ſome obſervations on thoſe intended for the uſe of the public in general. Theſe, he thinks, ſhould be made of ſpirit of wine, rather than of mercury, as, in this way, they can be more eaſily executed, and will be leſs expenſive. After offering many directions, which he thinks ſhould be followed in regulating and conſtructing theſe, he obſerves, that the concurrence of the public is the only meaſure which will ever induce artiſts to relinquiſh thoſe faulty methods which they have already adopted *.

VIII.

A Treatiſe on the Kinkcough, with an Appendix, containing an account of Hemlock, and its Preparations. By William Butter, M. D. *Fellow of the Royal College of Phyſicians* Edinburgh. *8vo,* London.

THE obſervations on kinkcough, with which we are here preſented, are divided into ſeven chapters. In the firſt of theſe, the author ſets out with enumerating the ſynonimes for this diſeaſe which have been employed by different authors. He then defines it, A quick and numerous ſucceſſion of violent ſhort coughs, followed by a long, ſtrait, and generally ſhrill inſpiration, which coughs and inſpiration are repeated without

---

* An account of the ſecond volume of this work will be given in a future number.

without intermiſſion, for many ſeconds, or even ſome minutes, and often terminate in vomiting of phlegm. To this definition he ſubjoins a full deſcription of the diſeaſe; and concludes the chapter with ſome remarks upon the prognoſtics. According to Dr Butter, a fatal termination of kinkcough is owing, either to the length of the diſeaſe, or the violence of the fits. In infants, he obſerves, it terminates fatally, from producing convulſions, ſuffocation, apoplexy, inflammation and ſuppuration of the brain, ruptures, and incurvation of the ſpine. In pregnant women, it has often produced abortion; and, in adults, it occaſions inflammation of the lungs, and its conſequences, more frequently than in children. From long continued kinkcough, patients will become aſthmatic, conſumptive, rickety, or ſcrophulous.

The author conſiders a moiſt ſkin, warm limbs, open belly, plentiful expectoration, and free vomiting, as good ſymptoms. On the contrary, he draws an unfavourable prognoſis, when oppoſite circumſtances take place. Frequent haemorrhagies, he obſerves, protract the diſeaſe, and a pulmonary one is apt to induce conſumption. In patients liable to epilepſy, or other diſorders of the brain; in ſuch as have weak lungs, or who have been reduced by a preceeding diſeaſe; the kinkcough is often productive of the worſt conſequences. When joined with worms, dyſentery, meaſles, ſmall-pox, or peripneumonic ſymptoms, it is always dangerous. Our author concludes this chapter with obſerving, that theſe prognoſtics, according to the common method of cure, are uniformly juſt; but that a more ſucceſsful treatment will afford exceptions as to the danger.

In the ſecond chapter, Dr Butter proceeds to conſider the nature of kinkcough. It is, our author obſerves, an epidemic contagious diſeaſe, often complicated with other diſorders, forming varieties worthy of the moſt attentive conſideration. It is not eſſentially attended with fever; as in the intervals the patient is entirely free from any complaint. It commonly laſts for ſome months, returning in fits for the moſt part at equal diſtances. Much bleeding and purging are hurtful in it. The moſt famed remedies for it, are gentle vomits, ſtomachic laxative paregorics, and ſtimulating antiſpaſmodics. It has often been carried off by a fright. And the diſſections of thoſe dying early in it have diſcovered nothing praeternatural. From all theſe circumſtances, he concludes, that it is a nervous ſpaſmodic diſeaſe.

He farther remarks, that an uncommon ſecretion of mucus takes place in this diſeaſe, a free diſcharge of which mitigates the ſymptoms: And that, in proportion as the quantity of ſlime diminiſhes, the fits become more mild and leſs frequent. From this, he concludes, that a morbid irritability of the mucous glands is the primary affection, and that the ſpaſms are only ſecondary.

An inquiry concerning the ſeat of the kinkcough is the ſubject of the third chapter. Various have been the opinions entertained with regard to it. Some have ſuppoſed it to be in the lungs, ſome in the ſtomach, ſome in both, while others have maintained that it is in the head of the wind-pipe or gullet. Dr Butter deſerts all theſe opinions, and denies that any one of the places above mentioned is primarily affected. He alledges, that ſome part of the inteſtinal canal is the principal ſeat of this diſeaſe. To confirm this opinion, he offers arguments drawn from four ſources: 1. From the nature of thoſe habits moſt ſubject to kinkcough. It chiefly attacks children; and, in them, it is well known that the inteſtinal canal is more irritable, and conſequently more eaſily affected, than any other part of their bodies. 2. From the nature and cure of kinkcough, it is obſervable, that thoſe children paſs moſt eaſily through this diſeaſe, who have an open belly; that vomits are moſt ſerviceable when they promote a gentle looſeneſs at the ſame time; and that patients labouring under kinkcough bear the action of vomits much better than they do of purgatives. All theſe circumſtances, in the opinion of our author, ſeem to point out the inteſtines as the ſeat of the diſorder. 3. From the diſeaſes conſequent upon kinkcough. The chief of theſe are, the king's evil and rickets; both of which, in a particular manner, derive their origin from an affection of the alimentary canal. 4. From the periodical returns of the paroxyſms. Here our author runs a parallel between kinkcough and intermittent fever. He thinks it the moſt probable opinion, that the latter of theſe diſeaſes has its proximate cauſe in the guts; and he is even inclined to ſuppoſe, that all intermittent diſtempers depend upon a primary affection of the inteſtinal canal. In ſupport of this doctrine, he adds the hiſtory of three intermittent diſeaſes, which were principally cured by evacuations from the inteſtines.

The author concludes this chapter with adducing ſome objections againſt the ſuppoſition that kinkcough is ſeated either in the ſtomach or lungs. He thinks it improbable that it is ſeated in the lungs, as he alledges that, in this diſeaſe, pectorals do more harm than good: That a pulmonary cough, if not dangerous, terminates ſooner than kinkcough; and that the rickets and ſcrophula are never produced by a pulmonary cough. He thinks it improbable that it is ſeated in the ſtomach, becauſe it is not attended with violent pain, ſickneſs, faintiſhneſs, and ſuch like ſymptoms; and becauſe intermittent diſorders in general can never be ſuſpected to have their ſeat in the ſtomach, ſince vomits render more diſtinct intermiſſions which were formerly obſcure.

Having endeavoured to aſcertain the ſeat of kinkcough, Dr Butter next endeavours to inveſtigate its cauſes. As the chief prediſpoſing cauſes, he points out the conſtitutional irritability of children; hereditary prediſpoſition to ſpaſmodic diſorders; the actual exiſtence of ſuch diſorders; a redundancy of vitiated humours in the ſtomach and guts; worms; dentition; cold; and acute diſeaſes in general. The occaſional cauſe he ſuppoſes to conſiſt entirely in infectious miaſmata, capable of generating the diſeaſe. Theſe miaſmata, he thinks, are the growth of Europe, in the ſame manner as thoſe of the plague, meaſles, and ſmall-pox, are of warmer climates.

Dr Butter next preſents us with the hiſtory of twenty caſes of kinkcough, in which he employed hemlock, in different forms, with great ſucceſs. Building upon this practice, he proceeds, in the ſixth chapter, to lay down the cure of kinkcough, both ſimple and complicated. In the ſimple kinkcough, he tells us, there is but one indication, and that is, to adminiſter hemlock. He directs that it ſhould be diffuſed in a watery vehicle, begun in ſmall doſes, and gradually increaſed. For a child under ſix months old, he directs half a grain to be conſumed in a day; for one from ſix months to two years old, one grain; afterwards allowing half a grain for every year of the patient's age, till he be twenty: Beyond that period, he directs that ten grains be given for the firſt day's conſumption, gradually increaſing the doſe according to its effect. If the patient have not two ſtools a-day, he adviſes that magneſia or polychreſt ſalt be added to the hemlock-mixture. In the cure of kinkcough complicated with worms, dyſentery, dentition, ague, ſmall-pox, and meaſles, he recommends, with the employment of hemlock, the exhibition of ſuch medicines as are beſt adapted to the nature of each particular diſeaſe. When kinkcough is complicated with pregnancy, the ſimple method of cure may, he tells us, be followed out with ſucceſs.

This treatiſe on kinkcough is concluded with ſome general corollaries drawn from the preceeding obſervations. He alledges, that hemlock is ſeldom contra-indicated by any peculiarity of temperament; that it is a ſafe remedy for kinkcough, both in the laſt months of pregnancy, and firſt months of infancy; that it is a certain antiſpaſmodic; that it is a good medicine in dentition and worms; that it ſometimes removes fever, ſtops immoderate excretions, and promotes ſweat; that it frequently keeps the belly open, and often purges; that ſometimes it affects no ſecretion or excretion; that it immediately procures better nights in kinkcough, abates vomiting, and diminiſhes phlegm; and that, in the ſpace of a week, it generally removes the kink and other concomitant ſymptoms, except a ſlight cough.

To theſe obſervations on kinkcough, the author ſubjoins an appendix concerning hemlock and its preparations. He here firſt preſents us with the ſynonimes and botanical deſcription of the plant; and then makes ſome remarks on its preparations, which he divides into internal and external. Of the firſt kind are, the powder, the extract, the pills, and the mixture; and, of the laſt, the plaſter, the ointment, the poultice, and the fomentation.

The powder of Hemlock, Dr Butter prepares from the leaves, foot-ſtalks, and tender parts of the ſtem, gathered about the time the flowers begin to open. Theſe he directs to be ſpread on a hearth, before a good fire, with a deep fender behind, to haſten the proceſs of drying. When they are ſufficiently friable, they muſt be reduced to a powder, and preſerved in phials well ſtopped. The powder, in this ſituation, will retain its efficacy for ſeveral months.

In order to prepare the extract, the plant, he tells us, at the ſame age at which it is cut for the powder, muſt be gathered over night, that all the other parts of the proceſs may be finiſhed on the following day. After being cut, bruiſed, and put into hair bags, the expreſſion muſt be continued till the drops fall very ſlowly. The whole of the juice, without depuration, muſt then be put into a broad glazed platter, and placed over a charcoal-fire, in a fire-pan. Before it becomes very hot, it runs into clots. You are then to ſtir it frequently with a hemlock ſtalk, keeping up a ſufficient degree of heat to make the clots move about, without cauſing any ebulition. Proceed in this manner, till the inteſtine motion ceaſes, and no effort is made by the contiguous maſs to fill up any vacuities which the ſtirring may occaſion in the bottom of the platter. You will then, ſays he, have an extract of a proper conſiſtence.

For making the pills, he adviſes, that to any quantity of the extract, one fifth of the powder ſhould be added. The maſs thus formed, is to be put up in ſtone pots, capable of containing a pound weight; and in this manner, we are told, it will keep perfectly well for the ſpace of two years.

The hemlock mixture is an extemporaneous preſcription, and is made by diſſolving from eight to twenty, or more grains, of the maſs prepared for pills, in eight ounces of ſpring water, and adding to it half an ounce of proof-ſpirit, and as much white ſugar.

For the hemlock-plaſter, he gives the following receipt. Take of gum ammoniac eight ounces,

ces, common vinegar an Engliſh pint; rub them together in a marble mortar, till the gum be diſſolved; then incorporate the ſtrained ſolution with four ounces of the maſs of hemlock-pills; and afterwards evaporate the whole over a very gentle heat, to the conſiſtence of a plaſter.

Equal quantities of the maſs of hemlock-pills and honey, mixed together without heat, conſtitute his ointment. And his poultice is made, by mixing either the powder of hemlock, or the bruiſed leaves, with oat-meal, and a ſmall proportion of honey, adding as much ſpring-water as may be ſufficient to bring the other ingredients to a proper conſiſtence. The hemlock-fomentation he directs to be prepared, by boiling eight ounces of the freſh herb, well bruiſed, in an Engliſh gallon of water, ſtraining the liquor when cold, and afterwards heating it for uſe.

IX.

Examen de la Queſtion, Si les Eſpèces changent parmi les Plantes? Nouvelles Expériences tentées à ce ſujet. Par M. Adanſon. *Vid. Hiſtoire de l'Académie Royale des Sciences, année* 1769, 4to. Paris.

THE queſtion which is propoſed as the ſubject of this diſſertation, was firſt ſtarted by Mr Marchant. In the year 1715, he found a ſpecies of mercurialis, the leaves of which reſembled threads. It differed ſo much from the common mercurialis, that he thought it deſerved a particular name: He therefore denominated it Mercurialis foliis capillaceis. The year following, this plant appeared in the ſame place, with its leaves deeply cut, from which he termed it, Mercurialis foliis in varias et inaequales lacinias quaſi dilaceratis. Theſe obſervations led him to ſuppoſe, that new ſpecies of plants may be produced.

Nothing farther was ſaid upon this queſtion, till the year 1744, when Mr Linnaeus, who had formerly been of a different opinion, began to entertain doubts on this ſubject, and to allow the poſſibility of new ſpecies being produced. This proceeded from his having obſerved ſeveral tranſformations in plants. Of theſe we are preſented with ſome inſtances in the paper now before us.

Mr Zoiberg, in the year 1742, when botanizing in an iſland about ſeven miles from Upſal, found in a gravelly ſoil, which was covered over with Linaria, a plant greatly reſembling the common Linaria, but differing from it ſo conſiderably, as to conſtitute a new genus, which he named Peloria. He imagined that it proceeded from the Linaria being foecundated by ſome other plant.

Another transformation happens annually in the garden at Upſal, where the ſeeds of the common thiſtle produce the thiſtle of the Pyrenees.

A third transformation is, that the great and ſmall Vervine of America have produced a new ſpecies of Vervine, reſembling in its leaves the Vervine of Europe, and in every other part the great Vervine of America.

From theſe, and other ſimilar inſtances, Mr

Linnaeus concluded, that many different genera of plants are derived from the ſame mother, by different fathers; and pointed it out as a new field for botaniſts to attempt the multiplication of the ſpecies of plants, by different mixtures.

Mr Adanſon tells us, in the memoir now before us, that he was at firſt inclined to adopt this opinion; but that, from a more particular examination of the inſtances adduced, he was at length led to reject it. The mercurialis of Mr Marchant diſappeared in the year 1716; and was firſt ſeen again in the royal garden at Paris, in the year 1766. It was in full bloom on the eleventh of July. Mr Adanſon diſcovered it to be a male plant. Its leaves, although they had ſuffered no damage, reſembled thoſe of the reſeda, when eat by inſects. Its antherae were three times leſs than ordinary, of a ſpherical figure, and quite devoid of ſeminal duſt.

To determine whether this plant was capable of generation or not, he placed ſix ſhoots of the female mercurialis under it, and ſhook it three or four times a-day over them, that, if it had any ſeminal duſt, they might be foecundated. To avoid ambiguity, he deſtroyed every other plant of mercurialis in the garden. The ſeeds of the female mercurialis, under this male, being arrived at maturity, ty, by the 15th of July, he ſowed part of them. None of them, however, ſprung, although the plant of extraordinary Mercurialis grew to the height of twelve inches, and laſted till the froſt killed it. In the ſpring of the year following, he ſowed the remaining part of his ſeed. About one in ten grew. But the plants produced were no other than the common Mercurialis.

As the leaves of the extraordinary Mercurialis reſembled thoſe of the Reſeda, Mr Adanſon attempted, according to Mr Linnaeus's idea, to impregnate the female Mercurialis with the ſtaminal duſt of the Reſeda, and of the male Canabis. But, from all the ſeeds produced by theſe mixtures, he could obtain only the common mercurialis.

From theſe experiments, the author concludes, that the fecundation of the ſeed of one genus of plants cannot be brought about by the farina of a different one; that the few ſeeds of his mercurialis, which germinated, even when he had taken care to deſtroy every male in the garden, had been fecundified by the farina of ſome male mercurialis brought from the neighbourhood by the wind; and that thoſe plants of Mercurialis, which Mr Marchant and himſelf had obſerved, were only monſtrous individuals, and by no means a new ſpecies.

He farther obſerves, that the Peloria, which is mentioned by Linnaeus to have produced fertile ſeed, is no ſtronger argument of a new ſpecies: Becauſe ſeveral ſpecies of the Linaria will produce, upon the ſame plant, the flowers of the Peloria mixed with the common flowers; and, in theſe caſes, the natural flowers only produce fertile ſeed. He is of opinion, therefore, that theſe extraordinary plants can be conſidered only as vegetable mules, in which the parts of generation are always vitiated.

As the facts, however, reſpecting the Mercurialis and Peloria, are the only authentic ones upon which the opinion of Linnaeus is founded, he thinks himſelf authoriſed to reject it. He concludes, therefore, that the production of new ſpecies does not take place in the vegetable, any more than in the animal kingdom; and that the deviations from nature are never allowed to paſs certain bounds. Beyond theſe, ſays he, every thing retains that order at firſt eſtabliſhed by the wiſdom of the Creator.

X.

Nouvelles recherches pour ſervir à determiner la Nature de la Bile, par M. Cadet. *Vid. Hiſtoire de l'Académie Royale des Sciences, Année* 1769. 4to, Paris.

IN a former memoir, of which an account has already been given in theſe Commentaries, Mr Cadet had delivered his ſentiments concerning the bile, at conſiderable length. He was induced, however, to reſume the conſideration of this ſubject, in conſequence of a theſis publiſhed at Straſburgh by Mr Roederer.

In that theſis, the author had aſſerted, that the bile contains an acid, and that it coagulates milk. Suppoſing theſe aſſertions to be well founded, it could not be eſteemed a real ſoap, which Mr Cadet had before attempted to eſtabliſh. In the paper now before us, he endeavours to offer ſuch a confirmation of his former opinion, as may remove any doubt ariſing from Mr Roederer's experiments.

Mr Cadet mixed bile with milk in a variety of ways; and, from the reſult of ſix experiments, it appeared that the milk ſuffered no decompoſition or coagulation. He ſtill concludes, therefore, as he had formerly done, that the bile is an alkaline in the ſame manner as ſoap is. He accounts for the acid which Mr Roederer imagined he had diſcovered in it, from ſuppoſing that it may be the effect of an acid fermentation; and this, he alledges, may be owing to the gelatinous part which it contains. At the ſame time, he obſerves, that, in his own experiments, he could never diſcover any acid fermentation in the bile, and that it always paſſed very quickly into a ſtate of putrefaction.

The author, therefore, is inclined to believe that, in Mr Roederer's experiments, the coagulation of milk muſt either have been owing to the milk being already diſpoſed to be ſour, or to the bile being changed in its nature. He obſerves, however, that the effect of bile thus degenerated can be conſidered only as a ſolitary fact, and that no general concluſion can be drawn from it with regard to the conſtituent principles of the bile. He imagines, therefore, that his former concluſions were well founded; and that the bile is an animal ſoap, void of all evolved acid.

XI.

Mémoire ſur des Inſectes ſur leſquelles on trouve des Plantes, par M. Fougeroux de Bondaroy. *Vid. Hiſtoire de l'Académie Royale des Sciences, Année* 1769. 4to, Paris.

IT has often been obſerved, that ſome plants grow upon others, and derive their nouriſhment from them: But it is by no means ſo generally known, that vegetables can take root and flouriſh on living animals. Mr Fougeroux has had an opportunity of obſerving ſome inſtances of this extraordinary fact. Theſe obſervations, together with what other naturaliſts have ſaid upon the ſubject, fourniſh matter for the memoir now before us.

The plants, of which an account is here given by Mr Fougeroux, are perfectly the reverſe of the worm-plant of China, deſcribed by Mr Reaumeur in the year 1726. For, in that caſe, a worm fixes its ſnout into the extremity of the plant, and derives nouriſhment from it. But the plants, of which an account is here given, derive their nouriſhment from the animals.

In this memoir, Mr Fougeroux propoſes to point out different inſects upon which plants do grow; and to propoſe what ſeems to him the moſt probable method of accounting for this conjunction. The greateſt part of the animal plants, which he has ſeen, grow, he tells us, on the chryſalis of a ſpecies of cicada. The plant growing on theſe inſects has got the generic name of Clavaria, becauſe its ſtalks and branches, when it has any, are terminated by tubercles, which give it the appearance of a little club. The root of this plant, in general, covers the body of the inſect, and ſometimes is even extended over its head. When theſe productions have for ſome time been preſerved in ſpirits, the plant and animal may be ſeparated from each other without hurting either. Small grooves, formed by the rings of the animal, may be obſerved running croſs the roots of the plant: But no veſtige can be found of the root's having any where penetrated the body of the inſect. Theſe plants produce fibres differing in length and number. The fibres are terminnated by tubercles, which, before the plant arrives at maturity, are ſolid; but, after that period, they are found punctured, probably by worms which have ſuffered a metamorphoſis upon eſcaping from them.

According to Mr Fougeroux, plants grow, not only on the chryſalis of the cicada, but upon the cicada itſelf. He ſaw one of this kind upon a cicada brought from Cayenne. The plant, in this caſe, differed from the clavaria already mentioned. It was a ſpecies of fucus, compoſed of long, white, ſilky fibres, covering the body of the inſect, and extending, from ſeven to eight lines, above and below its belly.

The author has found the clavaria formerly deſcribed growing upon worms. He has found it chiefly upon thoſe worms which, ſuffering a metamorphoſis, become afterwards a ſmall ſpecies of May-bug. This chryſalis, he obſerves, is very different from that of the cicada, and, even in its worm-ſtate, may eaſily be diſtinguiſhed from it.

After deſcribing theſe different ſpecies of animal plants, the author next proceeds to offer his opinion upon this ſubject. He firſt conſiders what had been ſaid by Dr Watſon, in the philoſophical tranſactions, concerning the vegetating fly of the Caribbee iſlands. Dr Watſon's account of theſe flies is, that they bury themſelves about the month of May, and begin to be metamorphoſed in June; and that the little plant which grows upon them reſembles a branch of coral, is about three inches in height, and carries ſmall protuberances, where worms are generated, which are again converted into flies. The author imagines, that, in this account, Dr Watſon has been deceived by the worms which he has already mentioned eat into the clavaria, and undergo a change in the holes which they have there made. Mr Fougeroux is rather inclined to adopt the opinion of Dr Hill, founded upon obſervations made at Martinico. There the cicadae are very frequent, and, during their chryſalid ſtate, bury themſelves among dead leaves, to wait their metamorphoſis. Dr Hill imagines, that the ſeeds of the clavaria are then attached to them, and are afterwards developed, much in the ſame manner as the Fungus ex pede equino grows upon the hoofs of dead horſes.

It may appear aſtoniſhing, that the clavaria ſhould attach itſelf ſo conſtantly to the nymphae of the cicadae in America, as it is not obſerved to do ſo in other countries. For this Mr Fougeroux attempts to account, from viewing the clavaria as a paraſite peculiar to this ſpecies of inſect; from the great number of the nymphae of cicadae which abound in America; and from the circumſtances of the climate and ſoil, which may render this phaenomenon very common there, although it be not obſerved in Europe.

Many particulars reſpecting this ſubject probably ſtill remain to be inveſtigated. Mr Fougeroux, therefore, recommends it to thoſe lovers of natural hiſtory, who have themſelves an opportunity of examining facts of this kind, to multiply obſervations, by which a full account of this phaenomenon may be obtained.

XII.

Mémoire dans lequel on démontre l'action du Poumon ſur l'Aorte, pendant le temps de la Reſpiration; et ou l'on prouve, que dans l'Enfant qui vient de naître, le Poumon droit reſpire avant le gauche. Par M. Portal. *Vid. Hiſtoire de l'Académie Royale des Sciences, Anneé* 1769. 4to, Paris.

IN this memoir the author ſets out with obſerving, that no anatomiſt has hitherto given a perfect deſcription of the trachea. To ſupply this defect, we are here preſented with one by himſelf.

The trachea, he obſerves, when it reaches as far down as the ſecond or third vertebra of the back, divides into two branches. Theſe branches, which are termed bronchi, according to our author, differ from each other in thickneſs, length, and direction. The right, he tells us, is about one fourth part thicker, and one fifth ſhorter than the left, while the direction of theſe tubes undergoes changes at different ages. The left bronchial tube, in a foetus, is more inclined backwards than it is in an infant after reſpiration has once taken place; and the right, in an infant born to the full time, is more elevated than before birth.

After ſubjoining ſome other obſervations on the ſtructure of theſe parts, the author farther obſerves, that the right bronchial tube has free motion in that cavity of the thorax into which it paſſes, while the left is cloſely contracted by the aorta. In conſequence of this, the motions which take place in theſe two muſt mutually affect each other. To confirm his opinion, two inſtances are here ſubjoined.

Upon the diſſection of a patient, who before death had complained of great difficulty of breathing,

ing, the paſſage of the left bronchial tube was much ſtraitened by an aneuriſm at the curvature of the aorta. And, in a man who had a wonderful irregularity of pulſe, the left lobe of the lungs being filled with tubercles, the bronchial tube of the ſame ſide was raiſed higher than uſual, by which means it compreſſed the concave part of the curvature of the aorta. After narrating theſe inſtances, he next remarks, that, in reſpiration, the left bronchial tube is raiſed from its place, and carries the aorta along with it. In proof of this opinion, which, he thinks, may be of uſe in the practice of phyſic, he adduces ſome obſervations which he has himſelf made in opening living animals.

The diſſection of a kitten which he killed a few minutes after being brought forth, gives him occaſion for ſome farther remarks. In this animal, the right lung was of a whitiſh colour, filled the whole cavity of the cheſt, and ſwam in water. The left was of a dark red colour, in a collapſed ſtate, and ſunk in water. But, upon being blown into, it kept upon the ſurface of the water, in the ſame manner as the right. From this he concluded, that, in the firſt reſpirations, the air enters only into the right lobe of the lungs. In this opinion he was confirmed, by repeated trials made upon other animals, and upon a human foetus which had never breathed. Upon blowing into the trachea, he found the right lung much more diſtended than the left.

He alledges, that this circumſtance may eaſily be explained, from the remarks he had before made concerning the ſtructure of the parts. And he concludes with pointing it out, as a particular well meriting the attention of thoſe who are called in criminal caſes, to determine whether a child has breathed or not. The right lobe may ſwim in water, while the left ſinks. From truſting to a ſingle trial, therefore, diſagreeable miſtakes may be produced.

SECT. II.

Medical Obſervations.

I.

A Caſe of incarcerated Hernia Cured, by Mr William Chalmers, *Surgeon in Edinburgh.*

ABout eight or nine years ago, a ſtrong healthy man, aged ſeventy-ſeven, by trade a baker, imagining he was to ſit down upon a chair, which, by miſtake, had been removed, accidentally fell to the ground. Immediately upon this, a ſmall tumour was obſerved in his right groin. As it was concluded to be a hernia, he uſed a truſs for it, and continued long free from any great uneaſineſs. If at any time it appeared, he could with great eaſe reduce it himſelf, till about five or ſix months ago. It then continued down for three days together, but without any violent ſymptom; and at the end of that time it went up of itſelf. He remained in good health till the fourth of February 1773, when, upon an over exertion at work, the tumour appeared more large and tenſe than it had done ever before.

On the ſixth of February, I firſt ſaw him; and found the tumour larger than a man's fiſt, of an oval ſhape, and girded at the ring of the obliquus deſcendens muſcle, as if a bit of tape had been tied round it, being much narrower there than at the lower part. The teſticle could be diſtinctly felt. He complained of pain, when the tumour was touched; he had paſſed nothing by ſtool for four days; he vomited every thing he took; he was affected with pain in his belly; his thirſt was exceſſive; his ſkin hot; his pulſe beat ninety ſtrokes in minute, and was full and ſtrong. In this ſituation, he was blooded, fomented, and got ſeveral cathartics, both by the mouth, and in the way of injections. Many attempts were at the ſame time made to reduce the tumour, both by himſelf, and by me. But all was to no purpoſe.

Feb. 8. The ſymptoms above enumerated were much aggravated, with the addition of frequent hickuping. Two ſurgeons viſited him along

long with me, who agreed with me in opinion that the caſe was a ſtrangulated hernia, and that the operation was abſolutely neceſſary. It was accordingly performed that night. Upon opening the ſac, I found that its contents were the caput coli, proceſſus vermiformis, and part of the colon. Theſe I had never before obſerved down, in any other caſe in which I had formerly operated. It likewiſe deſerves to be remarked, that, although it was only four days ſince the deſcent of the gut, there were ſeveral ſtrong adheſions to the back-part of the ſac. They were, however, ſafely cut through, and the gut returned into the abdomen. Soon after the operation, there enſued a conſiderable haemorrhage; and, upon removing the dreſſings, the inteſtines were protruded as much as before. They were returned, the lips of the wound ſecured by a ligature, and a bit of ſponge applied to the part from which the blood oozed moſt copiouſly.

Feb. 9. He had paſſed a pretty eaſy night. After the operation, he vomited a little, but none again till that forenoon. He had not yet, however, got any paſſage by ſtool; I therefore ordered a clyſter, which operated twice. For the reſt of the day he continued pretty eaſy, and his pulſe came down to eighty.

Feb. 10. He had a very bad night, vomited inceſſantly, complained much of pain in his belly, and had exceſſive thirſt. He then got a calomel bolus, and a ſolution of Glauber's ſalt with manna; but he had no ſtool. He continued in the ſame way all that day; his pulſe was feeble and intermitted frequently, and his look was pale and languid.

Feb. 11. He continued much as before, till about ſix in the morning, when he had ſeveral copious ſtools, and paſſed a good deal of hardened foeces, by which he was much relieved. After this, he continued pretty eaſy for the reſt of the day. His pulſe was not ſo feeble as it had been the day before, but it ſtill intermitted.

Feb. 12. He was reſtleſs during the greateſt part of the night, but towards morning had ſome ſleep. He had not had any return of vomiting ſince ſix o'clock the preceding morning. His pulſe was ſtronger, his look better than before; and from time to time he took ſome food. But, as he had no ſtool during the night, he was ordered electuary of cream of tartar.

Feb. 13. He had ſeveral ſtools during the night; in the day-time he ſlept quietly; his pulſe was fuller and ſtronger than it had been at any time ſince the operation; and he did not complain of thirſt.

Feb. 14. He was reſtleſs in the beginning of the night, but ſlept a good deal in the forenoon, and had two ſtools during the day.

Feb. 15. The wound was dreſſed, had a good appearance, and was beginning to ſuppurate; but a new ſet of ſymptoms now ſuperveened. On the preceding evening, a tumour appeared upon the ſide of his head, which ſeemed to be the parotid gland enlarged. He complained much of its being painful, particularly upon being touched. A poultice of bread and milk was applied to it. Through the night, however, he continued reſtleſs and uneaſy, ſlept very little, was delirious when he awoke, was much affected with heat and thirſt, complained of univerſal ſoreneſs, and his pulſe was 96.

Feb. 16. He had a very bad night, and continued in every reſpect much the ſame as the day before.

Feb. 17. The wound was again dreſſed, and continued to look well. The tumour on his cheek was eaſier, and diminiſhed in ſize: But he had paſſed a reſtleſs night; his pulſe was feeble, and intermitted frequently; and his ſtrength much exhauſted.

Feb. 19. His wound continued to ſuppurate well. He had been reſtleſs for the two preceding nights, but ſlept a little in the day-time.

Feb. 20. He had not got paſſage by ſtool for three days paſt. His belly was tenſe; he was uneaſy through the night, and ſlept none. But the following night he had ſeveral ſtools, by which he was much relieved; and on the 22d he continued eaſier; but he ſtill complained of ſome pain along the courſe of the colon; and his belly continued fuller and more tenſe than when in health. The wound was completely ſuppurated, and looked well.

Mar. 1. For ſeveral days before, he had been free from all complaints; he was gradually growing ſtronger, and the wound beginning to contract; by the 8th it was much contracted, and on the 18th was almoſt healed. But I then found, that, for ſome days, he had been gradually loſing ſtrength. He was at times affected with heat and fluſhings; much troubled with cough; he expectorated,

torated, with great difficulty, a thick viſcid phlegm, and his breathing was very laborious. By the 26th, however, all his complaints were better, and the wound perfectly heal.

About the beginning of May, he was ſo well as to be able to walk above three miles in a day, without any inconvenience. But, after that, he had a ſevere fit of the gout, from which, however, he is ſince recovered; and continues now, July 29th, in perfect health.

II.

Extract of a Letter from Dr Graham *Phyſician in Stirling, to* Dr Hope, *Profeſſor of Botany in the Univerſity of Edinburgh, concerning the external application of Deadly Nightſhade.*

FOR many years paſt, I have uſed the Belladona externally with ſucceſs, in hard ill-conditioned tumours and ulcers. I ſhall give you an inſtance of the good effects of this practice.

A middle aged woman became affected with an uncommon difficulty in diſcharging her foeces, which gradually encreaſed to ſuch a degree, that at length ſhe could have no ſtool, without the aſſiſtance of injections. By the help of theſe, however, ſhe continued for a conſiderable time without aſking advice about her complaint. But, by degrees, it became more and more difficult for her to introduce the clyſter-pipe; and at length ſhe found it almoſt impoſſible. In this unhappy ſituation ſhe ſent for me.

Upon introducing my finger by the anus, it was ſtopped by a hard tumour, ſeated in the anterior part of the rectum, immediately above the ſphincter. I was likewiſe ſenſible of the ſame obſtruction, upon introducing my finger by the vagina. This tumour, as far as I could judge, was about the ſize of a man's fiſt. She ſometimes complained of violent pains darting ſuddenly through it. At other times it gave her no other uneaſineſs, than what might be ſuppoſed to proceed from obſtructed foeces. She was always free from any degree of fever.

In this unfavourable caſe, I imagined that little could be done, unleſs by external applications; and that from theſe much could not be expected. I ordered a poultice made of the root of Belladona, boiled in milk, to be applied to the anus and perineum, and to be renewed every morning and evening. Such was the effect of this application, that in forty eight hours after it was firſt employed, a clyſter-pipe could be introduced with eaſe. She became daily ſenſible of the reſiſtance diminiſhing; and in the ſpace of a month was reſtored to perfect health. There was in this caſe no ſuppuration, nor even the ſmalleſt diſcharge of any matter which might be ſuppoſed to come from the tumour, either by the anus or vagina. But the tumour gradually diminiſhed in ſize, and, in a few days after the application of the nightſhade, the ſurface of it could plainly be felt in a wrinkled ſtate.

I could write you more examples of the good effects of this plant externally applied. Sometimes I have ſeen bad effects from its being taken internally; but I never ſaw an inſtance of any one dying from it. I remember, indeed, to have heard of a ſoldier who died after eating the berries. But I have been aſſured by ſome people here, that, when they were boys at ſchool, they have drunk the juice of the berries in no inconſiderable quantities, without being hurt by it. This, I own, I have ſome difficulty in believing. Yet the plant grows in great abundance in the neighbourhood of this town, and is well known to every body.

III.

Extract of a Letter from Mr Goodſir *Surgeon at Largo, to* Dr Duncan *Phyſician in Edinburgh, concerning the Effects of the Flowers of Zinc.*

I Have uſed the flowers of Zinc in ſeveral caſes. In the two following ones it ſeems to have had a good effect.

About five or ſix years ago, a girl was ſeized with a hyſteric fit, after walking barefooted among ſnow; and, ever ſince that time, ſhe has, at intervals, been affected with fits of the ſame kind. But, for theſe three years paſt, they have gradually become more ſevere than before, and recurred more frequently. During the fits, ſhe is ſometimes affected with obſtinate contractions in different parts of her body. At other times, ſhe will be ſeized with ſuch violent convulſions, as to throw her out of bed.

After trying with her a great variety of medicines, ſome of which gave a temporary relief, I had at length recourſe to the zinc. The firſt doſe ſhe took was to the quantity of a grain, during

ring the time of the fit. She had no ſooner ſwallowed it, than ſhe was ſenſible, as ſhe expreſſes it, of a ſenſe of creeping, all over the ſurface of her body: And, ſoon after, the ſpaſms, with which ſhe was before affected, were entirely relaxed. She has continued the zinc ever ſince, which is now ſix weeks, and, during that ſpace, ſhe has been much freer from fits, than at any time for theſe five years paſt.

If ſhe takes the zinc during a fit, it has now a very ſingular effect. Her complaints immediately leave the region of her ſtomach, and attack the inferior extremities. This ſhe has repeatedly obſerved. I myſelf ſaw it this day. She complained much of pain in her breaſt, from which, upon taking a doſe of the zinc, ſhe was immediately relieved: But her legs became ſo ſtiff, that ſhe was unable to walk.

The other caſe, in which I have employed the zinc with ſome ſucceſs, is that of a young man afflicted with epilepſy. His fits are preceded by an aura epileptica, ariſing from the inſide of the knee-joint. After trying ſeveral medicines, both internally, and topically to the knee, without any effect, I had at length recourſe to the zinc. He has now uſed it for ſome time, and thinks himſelf much better.

SECT. III.

Medical News.

MR John Hunter of London, in lectures which he read laſt winter, offered ſome curious obſervations on the exfoliation of bones, ſloughing, and cauſtics. The following account of them, will, we apprehend, be highly acceptable to moſt of our readers.

Mr Hunter is of opinion, that the ſeparation of the dead parts of animals from the living has not hitherto been properly explained. He obſerves, that one part of a bone is never thrown off from another, by the rotting of the dead part, ſince that which comes away is as ſound, and as free from putrefaction as it ever was. It is impoſſible, that the hitherto ſuppoſed fungus between the ſound and unſound parts of a bone, ſhould ever take place in the manner that has been alledged. There is no room for ſuch a fungus; and granulations in cells are by no means adequate to the effect. Beſides this, exfoliation takes place ſooneſt in thoſe bones in which there are the feweſt cells, and where there is the cloſeſt coheſion.

Before any part of a bone can be thrown off by exfoliation, it muſt be dead. But even then, till the proceſs of exfoliation begins, the bone adheres as ſtrongly as ever, and would remain for years, before it could be ſeparated by putrefaction alone. Bones are compoſed of two ſubſtances, a true animal matter, and an earthy matter, only intermixed with the other. Hard bones have a greater proportion of both theſe ſubſtances, in a given ſpace; but at the ſame time they have fewer veſſels. A dead bone acts upon the ſyſtem in the ſame manner as any other extraneous body. It ſtimulates the adjacent living parts; in conſequence of which ſuch a proceſs is begun as muſt terminate in its being thrown off.

The effects of this ſtimulus are, 1*ſt*, That the living adjacent bone becomes more vaſcular; a circumſtance which always takes place, when a part has more to do than is juſt ſufficient for the ſupport of life. 2*dly*, That the earth of the living part, where it is in contact with the dead bone, is abſorbed. Hence the bone becomes ſofter, as if it had been ſoaked in an acid, and adheres by its animal matter only. 3*dly*, That the living animal part is at laſt abſorbed along the ſurfaces of contact. This part of the proceſs commences long before the laſt is finiſhed. Both of them begin firſt at the ſurface, though, in their courſe, they do not every where take place in an equal degree at the ſame time. And, 4*thly*, That, in proportion to the waſte made by the laſt part of the proceſs, a fungus ariſes from the living ſurface, and fills up the intermediate ſpace; ſo that there may be no vacuum.

Theſe different ſtages taken together conſtitute ulceration. When any part of a bone is once looſe, it will be puſhed to the ſurface in the ſame manner as moſt other inanimate bodies would be; and this ſtage is partly mechanical, partly a continuation of ulceration. A proof of the third ſtage mentioned above may be derived from thoſe caſes where people die while exfoliation is going on. A ſmall groove, or worm-eaten canal, can then be diſcovered, which becomes gradually deeper, and follows the irregularities of the living and dead ſurfaces. After the application of the trepan, a circular piece of bone is frequently thrown off, which is always leſs than the ſpace from which it came. This, however, could never be the caſe, were there not a loſs of ſubſtance.

The bones of grown people exfoliate ſooner than thoſe of young people. This probably happens from the nature of the bone itſelf; as all hard bones, and hard parts of bones, exfoliate ſooner, when deprived of life, than thoſe which are ſoft and ſpungy. Perhaps, hard bones become ſooner dead, from their having fewer veſſels.

Cauſtics, or actual cautery, do not in general haſten exfoliation. They produce death only in part of the bone, which is the firſt ſtep towards exfoliation. If cauſtics ever haſten exfoliation where the bone is already dead, it muſt be by producing inflammation in the adjacent living bone. This brings about a change in it, and makes it exert a power which it was incapable of doing before.

Mr Hunter cannot ſay that he ever ſaw a cartilage exfoliate, although he has ſeen above fifty caſes, in which cartilages were expoſed, and has paid particular attention to this ſubject. He has ſeen a cartilage ſcraped, and yet no ſenſible exfoliation enſued. He once ſaw a caſe where a cartilage became dead, turned black, and came wholly away from the end of the bone. But, upon examination, he found that part of the end of the bone had at the ſame time exfoliated, and fallen off with the cartilage; ſo that it was by no means the exfoliation of a cartilage from a cartilage.

He is of opinion, that, in ſloughing, the proceſs is nearly the ſame as in exfoliation. In this caſe, however, there is no earth to be abſorbed. Thus, the conſtitution, in throwing off a ſoft part, has nothing to do with what correſponds to the ſecond ſtage, in throwing off bone. By this means, the ſeparation is completed in a much ſhorter time. Parts endowed naturally with moſt animal life ſlough ſooner than thoſe which have leſs. As for example, ſkin and muſcles ſeparate ſooner than tendons and ligaments.

Mr Hunter is of opinion, that, in applying cauſtics, it is often of ſome conſequence to be able to leſſen the pain; eſpecially when women and children are concerned. For obtaining this end, he recommends the application of the extract of opium to the part, for an hour before the cauſtic be employed.

ployed. He adviſes likewiſe, that the cauſtic be previouſly mixed with the extract of opium inſtead of ſoap. The idea of this practice occurred to him many years ago, when he was houſe-ſurgeon to St George's hoſpital.

Laſt winter, Dr Hunter met with a very ſingular caſe of a conception in the Fallopian tube. In conſequence of its having burſt, an internal haemorrhage had enſued, which occaſioned the death of the woman. He ſhewed the parts to his pupils. The uterus was enlarged nearly as much as it would have been, at the period at which the woman died, had the conception been in it; and the membrana decidua was diſtinctly ſeen lining the fundus uteri. He obſerved, that this caſe confirmed two opinions which he had before entertained, concerning the gravid uterus. It ſhewed, that the enlargement of the impregnated uterus does not happen mechanically from the encreaſing bulk of its contents. It ſhewed likewiſe, that the decidua, or outer ſtratum of the ſecundines, belongs to the uterus, and not to the ovum, or that part of the conception which is brought from the ovarium.

During Dr Hunter's courſe of anatomy in the Spring 1773, Mr Cruickſhank employed himſelf pretty much in making injections of the kidney, liver, and lungs of the adult human ſubject. The following particulars were the reſult of theſe injections: 1*ſt*, In one caſe, he puſhed his injection from the artery to the pelvis and ureter, without any rupture of veſſels. 2*dly*, In another, he injected the pelvis and ureter from the vein, which he thought ſucceeded better than from the artery. 3*dly*, In three different kidneys, he injected from the ureters the tubuli uriniferi, for a conſiderable length along the mamillae; and, in one caſe, a number of the veins on the external ſurface of the kidney were evidently filled with the injection. In all theſe experiments, the colouring matter of the injection was vermilion. 4*thly*, In moſt of his injections of the arteries of the kidney, he found what anatomiſts have called cryptae, and have deſcribed as cells, to be exceedingly fine convolutions of very ſmall arteries. 5*thly*, He has often filled the lymphatics of the lungs and liver with quickſilver; and from the lymphatics of the liver he has been able, twice in the adult, and once in the foetus, to fill the thoracic duct itſelf.

The high expectations which the public have long entertained of Dr Hunter's anatomical plates of the gravid uterus, will probably be ſoon ſatisfied. The text for theſe plates is now in the preſs; and it is thought that they will for certain be publiſhed during the courſe of the enſuing winter.

An accurate ſurvey has this ſummer been made of the number of inhabitants in the town of Mancheſter. By it an exact account has been obtained of the number of houſes, families, males, females, married, widowers, widows, under fifteen, above fifty, male lodgers, female lodgers, and houſes which are in that town. The expence of this ſurvey was defrayed by a ſubſcription ſet on foot by that induſtrious phyſician and philoſopher Dr Percival, who has tranſmitted a particular account of it to the Royal Society. As an accurate enumeration of the inhabitants of any town is the only foundation upon which uſeful bills of mortality can be eſtabliſhed, it is unqueſtionably a ſubject which well merits the attention of phyſicians in general.

Dr Colin Drummond, who was choſen preſident of the Royal College of Phyſicians in Edinburgh, at their annual election in December laſt, having gone to reſide in Briſtol, ſent a demiſſion of his office. Upon this the college, at their quarterly meeting on the third of Auguſt, unanimouſly made choice of Dr William Cullen to be their preſident, till next annual election. At the above meeting, Dr Nathan Spens was admitted a licentiate of the college.

Dr Robert Hamilton phyſician at Lynn Regis in Norfolk, has ſent to the philoſophical ſociety at Edinburgh, an accurate hiſtory of the Mumps, a diſeaſe which for many years has been very prevalent in the town where he reſides, and its neighbourhood. He points out particularly the neceſſity of attending in practice, to that remarkable alternation which takes place between the ſwelling of the face and teſticles. And he mentions more than one inſtance, in which, after the teſticle had been greatly ſwelled, upon the diſeaſe going off, it was entirely waſted away, in ſo much, that the tunica vaginalis became an empty bag.

In a late diſſection of a pregnant woman, at Dublin, a double uterus has been found. The vagina was divided by a ſeptum, and the two paſſages thus formed communicated each with a ſeparate uterus. Theſe two uteri lay on different ſides, one ovarium and one Fallopian tube belonging to each. The one uterus was in an impregnated, the other, in an unimpregnated ſtate. A full account of this uncommon appearance, with an accurate drawing of it, which was taken at the time of the diſſection, will probably be ſoon communicated to the world, in ſome of the public tranſactions.

The great ſucceſs which has attended the benevolent endeavours of the ſociety, inſtituted ſome years ago at Amſterdam, for the recovery of drowned perſons, has induced ſeveral other ſtates in Europe to follow their example. Inſtitutions of a ſimilar nature have accordingly been ſet on foot at Hamburgh, Venice, Milan, Padua, Vienna, and Paris. Dr Alexander Johnſon, in the account which he has lately publiſhed of theſe foreign ſocieties, has endeavoured to point out the utility and advantage which would accrue to Great Britain from a ſimilar inſtitution, and to rouze the attention of his country-men to this ſubject. The particulars pointed out, as chiefly claiming the attention of ſuch inſtitutions, are to inform the common people of the meaſures which may be moſt effectually employed for the recovery of drowned *perſons*; to caution them againſt practices which have hitherto been frequently employed, but which experience has now ſhewn to be pernicious; to inſtigate them, by proper rewards, to the exertion of every endeavour for the recovery of life apparently loſt; and to defray any expences that may be incurred in ſuch humane attempts. Dr Johnſon promiſes, provided his deſign meets with proper encouragement, to publiſh inſtructions for the proper treatment, in the various accidents in which he apprehends relief may be adminiſtred.

SECT.

SECT. IV.

A Liſt of new Books.

THE philoſophical tranſactions, giving ſome account of the preſent undertakings, ſtudies, and labours of the ingenious, in many conſiderable parts of the world, vol. 62. for the year 1772, 4to, London.

An abridgement of Baron Van Swieten's commentaries, upon the aphoriſms of the celebrated Dr Herman Boerhaave, late profeſſor of phyſic, &c. in the univerſity of Leyden, concerning the knowledge and cure of diſeaſes. By Colin Hoſſack, M. D. of Colcheſter, phyſician to his late Royal Highneſs Frederick Prince of Wales, vols. 1. & 2.

Traité de la goutte, et de toutes les maladies chroniques, avec une méthode naturelle et raiſon-

née propre a les guérir. Ouvrage traduite de l'Anglois de Guillaume Cadogan, membre de la Facultaté de médecine de Londres, 8vo, Paris.

Statuts et réglemens généraux, pour les maitres en chirurgie des provinces du royaume; donnés a Marly le 24 Février 1730, 5me edition, augmentée des edits, arrêts, et déclarations, qui y ont rapport des differentes notes et eclairciſſemens, des modeles pour les lettres de maitriſe, &c. Dedié à M. de la Martiniere conſeiller d'état, premier chirurgien du Roi, &c. Par M. le Bloud d'Oblen, avocat en parlement, ſecretaire de M. le premier chirurgien du Roi, 8vo, Paris.

Elemens de pharmacie theorique et pratique, par M. Baumé; troiſiéme edition, corrigeé et augmentée, 8vo, Paris.

La Phyſique des Dames, ou les quatre elemens; ouvrage utile pour diſpoſer à l'intelligence des merveilles de la nature, par M. de Roſnay, 12mo, Paris.

Hiſtoire de l'Académie royale des ſciences, année 1770, avec les mémoires de mathématique et de phyſique pour la même année, tirés des regiſtres de cette academie, 4to, Paris.

Hiſtoire univerſelle du regne végétal, ou Nouveau dictionaire phyſique et économique, de toutes les plantes qui croiſſent ſur la ſurface du globe, contenant leurs noms botaniques, et triviaux dans toutes les langues, leurs claſſes, leurs familles, leurs genres, et leurs eſpeces ; les animaux auxquelles elles peuvent ſervir de nourriture ; leur analyſes chymiques ; la maniere de les employer pour nos alimens tant ſolides que liquides ; leur propriétés, non ſeulement pour le médecine des hommes, mais encore pour celle des animaux ; les doſes, et la maniere de le formuler, et les differens uſages pour leſquels on peut s'en ſervir dans les arts et metiers, &c. Auquel on a joint une bibliotheque raiſonné de tous les livres de botanique, l'explication des differens termes uſités dans cette partie de l'hiſtoire naturelle ; une notice de tous les ſyſtêmes ; et enfin le liſte des profeſſeurs, et des jardins botaniques de l'Europe. 24 vol. in fol. ornês de 1200 planches gravées en taille douce, par les meilleurs maitres, et deſſinées d'après nature ſur les plantes les plus rares du jardin du Roi, et de celui de Trianon, et d'apres la magnifique collection des plantes depoſée dans le cabinet des eſtampes à la bibliotheque du Roi, commencée et executée par ordre et ſous les yeux de feu M. le Duc d'Orleans regent du royaume, par Robert, Audriet,

driet, &c. et continuée dès nos jours, par M. Baſſeporte, 12 vols, folio. Paris.

F. A. von Waſſerberg von den nutzein und der weiſe, die luft rein zu halten. i. e. F. A. von Waſſerberg on the advantages of pure air, and on the means of obtaining it. Vienna.

Anfangs-grund der metallurgie, &c. i. e. Elements of mineralogy, tranſlated from the Latin of Wallerius, 8vo. Leipſic.

Hortus Romanus, juxta ſyſtema Tournefortianum, paulo ſtrictius diſtributus a Georg. Bonelli Moregal. med. Prof. ſpecierum nomina ſuppeditante L. Sabbati Mera. hort. cuſtod. tom. 1. Romae.

Zwey Canzelreden, &c. i. e. Two diſcourſes on the legality of inoculation, pronounced on the 21ſt of November 1769 and 1770. Mittau.

Dominici Vandelli. hiſt. nat. Prof. Reg. &c. Faſciculus plantarum prior. Liſbon.

A treatiſe on the Kinkcough, with an appendix, containing an account of hemlock and its preparations, by William Butter, M. D. Fellow of the Royal College of Phyſicians, Edinburgh. 8vo, London.

A courſe of phyſiology, divided into twenty lectures, formerly given by the late learned

Dr Henry Pemberton profeſſor of phyſic at Greſham college, Fellow of the Royal Society, and of that at Berlin, now firſt publiſhed from the author's manuſcript, 8vo. London.

Memoirs of the ſociety inſtituted at Amſterdam in favour of drowned perſons; for the years 1767, 1768, 1769, 1770, 1771, tranſlated from the original, by Thomas Cogan, M. D. 8vo, London.

Dictionaire des eaux et fontaines minérales, contenant l'hiſtoire naturelle de toutes les fontaines minérales de la France, leur deſcription hiſtorique, leur ſituation, l'analyſe chymique des eaux et leurs propriétés pour les differentes maladies; avec des obſervations pratiques ſur l'uſage qu'on doit en faire, les diverſes methodes de s'en ſervir, et le régime qu'il faut obſerver pendant leur uſage. On y a joint les differentes manieres d'analyſer les eaux minerales et d'en preparer d'artificielles, et une notice exacte de tous les ouvrages qui ont paru ſur cette matiere. 2 tomes, 8vo, Paris.

Cours complet d'anatomie en quinze planches, peintés et gravés en couleurs naturelles; par M. Gautier Dagoty ſecond fil, et expliquées par M. Jadelot profeſſeur d'anatomie, de la faculté de

medecine de Nanci, et de l'Academie des ſciences et belles lettres de cette ville, folio. Paris.

Obſervationes phaenomenorum electricorum in Hohen-Gebrachin et Priſling, prope Ratiſbonam, ſactae et expoſitae a Caeleſt. Steiglehner. O. S. B. &c. Regenſbourg.

Curationum chirurgicarum, quae ad fiſtulam lachrymalem huc uſque fuere adhibitae, hiſtoria critica. Auctore J. D. Metzger. M. D. Comitis Bentem-Steinfort Archiater, &c. Munſter.

Analyſe des eaux thermales d'Aiz en Savoi; dans laquelle on expoſe les diverſes manieres d'uſer de ces eaux, la methode et le régime de vivre, qu'il convient de ſuivre pendant leur uſage, et les differentes maladies pour leſquelles elles ſont employes; avec pluſieurs obſervations qui y ſont relatives, pour en conſtituer les proprietés. Par M. J. Daquin. M. D. de la faculté de Turin, medecin de l'Hotel-dieu de Chamberry, et ſecretaire de la ſociété d'agriculteur de la même ville. Chamberry.

Bechers neue abhandlung von Carlſbad waſſer. i. e. A new treatiſe on the Carlſbad waters, by David Becher, M. D. Prague.

Unterricht gegen die Kinder-Blattern, i. e. Directions with regard to the ſmall-pox. Dantzick.

A hiſtory of a gentleman cured of heats in his face, written by himſelf, 8vo. London.

Some additional obſervations on the method of preſerving ſeeds from foreign parts, for the benefit of our American colonies; with an account of the garden at St Vincent's under the care of Dr George Young. By John Ellis, F. R. S. 4to. London.

Advice to both ſexes in the venereal diſeaſe, and a method by which they may probably eſcape the infection in their intercourſes with each other, when one of the parties is foul, 12mo. London.

Directions for the management of children, from the time of their birth to the age of ſeven years; and a plain and full account of every diſorder to which they are ſubject, as well as of thoſe peculiar to the female ſex; with varieties of efficacious and eaſy remedies for each diſeaſe, ſelected from the beſt authors. By M. A. Clarke, M. D. and Profeſſor of midwifery, 8vo. London.

Examen chymique des pommes de terre, dans lequel on traite des parties conſtituentes de bled. Par M. Parmentier, apothecaire-major de l'hotel royal des invalides, 12mo. Paris.

Chymie experimentale et raiſonnée, par M. Baumê Maitre Apothicaire de Paris, Demonſtrateur en Chymie, et de l'Académie royale des Sciences, 3 vols, 8vo. Paris.

Dictionaire raiſonnée univerſel de matiere médicale, concernant les vegetaux, les animaux,

et les mineraux, qui ſont d'uſage en medecine; leurs deſcriptions, leur analyſe, leurs vertus, leurs propriétés, &c. recueillies de manuſcrits originaux et des meilleurs auteurs, anciens et moderns, tant etrangers que de notre pays; avec une table raiſonnée de tous les noms que chaque pays a données aux mêmes végétaux, animaux, et minéraux, 4 vols, 8vo. Paris.

Tableau des maladies veneriennes, ſuivi de l'expoſition des principales méthodes employées juſqu'ici pour les combatre. Ouvrage fondé ſur l'experience, et redigé d'apres les principes des plus grands medecins, tant anciens que modernes. Par M. C. E. Thion de la Chaume. Med. de la fac. de Paris, 8vo. Paris.

Recherches ſur les fievres, ſelon qu'elles dependent des variations des ſaiſons, et tels qu'on les a obſervées à Londres ces vingt dernieres années, avec des obſervations pratiques ſur la meilleur maniere de les guerir. Par M. Guillaume Grant. M. D. Traduit de l'Anglois par M. de la Febure, 2 vols, 12mo. Paris.

Hiſtoire naturelle du Thé, avec les obſervations ſur les qualities medicales, et les effets qui reſultent de ſon uſage; par Jean Coakley Lettſome, M. D. Traduit de l'Anglois, 12mo. Paris.

Avis aux gens de la campagne, ou traité des les maladies les plus communes. Ouvrage tres utile aux paſteurs, chirurgiens, et gens de la campagne. Par M. Didelot, 12mo. Paris.

Demonſtrations élémentaires de botanique a l'uſage de l'ecole veterinaire, nouvelle edition, 2 vols. 8vo. A Lyons.

Erxlobens betrachtungen, i. e. Reflections on natural hiſtory, by J. Ch. Erxloben. Gottingen.

Ern. Jerem. Neifeld, M. D. Ratio medendi morbis circuli ſanguinei, monumentis praeſtantiſſimorum medicorum, tum veterum, tum vel maxime recentiorum, ſuperſtructa. Breſlaw.

Caroli Strack, M. D. et in univerſ. Mogunt. med. prof. &c. Obſervationes medicinales de colica pictonum, maximeque ob arthritidem, 12mo. Francfort.

Traitement de la petite verole des enfans, à l'uſage des habitans de la campagne, et du peuple dans les provinces meridionales; auquel on a joint la methode actuelle d'inoculer la petite verole. Par M. Henry Fouquet, M. D. 2 vols. 12mo. Amſterdam.

J. F. Zuckert, M. D. Von den wahr mitteln die enthloſung epidemiſchen krankheiten zu verhuten,

kuten, i. e. An eſſay on the means of preventing depopulation from epidemic diſeaſes, by J. F. Zuckert, M. D. Berlin.

Diſſertationes medicae, quas ex auctoritate reverendi admodum viri Gulielmi Robertſon SS. T. P. academiae Edinburgenae praefecti; nec non ampliſſimi ſenatus academici conſenſu, et nobiliſſimae facultatis medicae decreto; pro gradu doctoratus, ſummiſque in medicina honoribus et privilegiis rite et legitime conſequendis; eruditorum examini ſubjecerunt,

Robertus-Butler Remmet, Britannus, De opii uſu in morbis inflammatoriis.

Georgius Pearſon, Britannus, De putredine animalibus poſt mortem ſuperveniente.

Carolus Newman, Hibernus, De dyſpepſia.

Joannes Ligertwood, Britannus, De angina inflammatoria.

Jacobus Johnſtone, Britannnus, De angina maligna.

Gulielmus Wemyſs, Britannus, De ophthalmia.

Boyleus Coghlan, Hibernus, De plethora.

Gulielmus Boyd, Hibernus, De diabete.

CONTENTS.

Strack de Colica Pictonum. 339
Bromfeild's Chirurgical Obſervations 345
Acrell ſur les Abſcés Critiques 366
Odelius ſur l'Uſage de Stramonium 368
Lindhoult ſur l'Electricité 370
Odelius ſur l'Uſage medecinale de Genêt 373
De Luc Recherches ſur l'Atmoſphere 374
Butter on the Kinkcough 387
Adanſon ſur les Eſpèces des Plantes 398
Cadet ſur la Bile 403
Fougeroux ſur les Inſects ſur lequels on trouve des Plantes. 405
Portal ſur l'Action du Poumon ſur l'Aorte 409
Medical Obſervations 413
Medical News 424
Liſt of new Books 435

INDEX.

INDEX.

A

	Pag.
ABſorbents, their influence as promoting or retarding putrefaction	282
Acrell J. G. obſervations on critical abſceſſes	366
Adanſon, experiments for aſcertaining, whether changes take place among the ſpecies of plants	398
Ajava ſeed, its uſe in the cure of colic	276
Alkaline ſalt, experiments for proving its exiſtence in milk	163
Alkali mild, its effects as a lithontriptic	325
Amſterdam ſociety for recovering drowned people, conclusions from their tranſactions	33
——————— remedies employed by them	35
Amputation, remarks concerning	346
Animal heat, experiments concerning	59
Aſtruc John, anecdotes concerning him	323

B

Barometer, hiſtory of	374
———— account of the light which it ſometimes produces upon agitation	377
Beccarius James, his obſervations on milk	161
Bell Benjamin, account of an epileptic caſe relieved by flowers of zinc	204
Bergius Petrus, on cream of tartar	243
Bibliotheca medicinae et hiſtoriae naturalis, tom. 1.	84
Bile experiments concerning, by Mr Cadet	63

Bile,

Bile, experiments concerning, by Mr Cadet 397
Bile human, experiments concerning, by Dr M‘Lurg 150
—— its redundancy in intermittent and remittent fevers explained 156
—— return of, into the blood by the veins 50
—— ſpit up from the lungs 94
—— its influence upon digeſtion 157
Bills of mortality, propoſal for eſtabliſhing accurate ones 276
Birds, genera of 197
—— heat of 61
Bladder, abſorption from, by the veins 50
Bleeding recommended in the plague 32
—— its uſe in ſcarlet ſever 29
—— its uſe in puerperal fever 233
Blood, the globules of, their ſtructure 101
—— its analogy to bile 154
—— experiments on its coagulable lymph 185
Bones, account of their exfoliation 424
—— obſervations on their diſeaſes 352
Brain, uſe of ſudorific powders in concuſſions of it 345
—— loſs of part of it 97
Braun J. A. on animal heat 59
Briſtol in Penſylvania, mineral waters there 70
Bromfeild William, chirurgical obſervations and caſes 345
Broom-aſhes, their good effects in dropſy 373
Butler, William, on the kinkcough 387
Buxton, obſervations on the waters there 170

C

Cabbage-tree, a ſyrup from it, efficacious in the cure of worms 328
Cadet, M. experiments in the bile 63
——— new experiments on the bile 403
Calculi, biliary, means of preventing their formation 160
Cancers cured by extirpation 127
Caoutchouc reſin, an account of it 293
——— method of diſſolving it 295
Caſcarilla, advantages of combining it with Peruvian bark 177
Cauſtics, their influence on exfoliation 427
Chalmers William, his account of an incarcerated hernia 413
Charcoal, obſervations on its noxious vapours 273
Cheeſe, a chymical analyſis of it 164
Cheſter, bill of mortality 327
Child-bed fever, obſervations on it 227
Cicuta, benefit reaped from the extract of the ſeeds 326
Coffee, experiments concerning it 274
Colica pictonum alledged to ariſe from gout 340
Columbo root, an account of it 264
——— its medicinal properties 265
Convulſions during pregnancy, obſervations concerning them 240
Convulſions cured by cold bathing 245
Cream of tartar, analyſis of 320
——— artificial method of making it 322
——— method of rendering it ſoluble 243

Crell

Crell, F. his experiments on putrefaction 194
Critical abſceſſes, fatal conſequences from opening them 366
Cruikſhank, William, his injections of the kidneys, liver, and lungs 429

D

De Haen, Antonius, ratio medendi continuata, pars 1ma 25
——————— pars 2da 33
De la Roche, Daniel, his account of an epileptic caſe 201
De Luc, Jean Antoine, philoſophical inquiries concerning the modifications of the atmoſphere 374
De Normandie, John, analyſis of Briſtol waters 70
Diureſis, its effects in an epidemic itch 259
Drowning, experiments concerning it 37

E

Electricity, its effects in the cure of diſeaſes 370
Encyſted tumours, diviſion of 128
Epilepſy, cured by ſtramonium 368
——— a caſe of it, with the appearances on diſſection 200
——— relieved by the flowers of zinc 204
Eryſipelas, method of treatment in it 350

F

Fevers, reflections on 52
——— ſymptoms of 55

Fevers, indications in 55
——— method of ſtopping them at their commencement 57
Fixed air, obſervations on its medicinal uſes 271
———— advantages from injecting it into the inteſtines in putrid fevers 306
———— its ſweetening properties 286
Floodings before and after delivery, method of treating them 237
Fluor albus cured by crabs eyes 325
Fougeroux, M. his account of inſects producing plants 405
Fractures, treatment of 356

G

Gaber, John, on animal fluids 184
Galeatius Guſman, his obſervations on Peruvian bark 172
Goodſir, John, his obſervations concerning the effects of the flowers of zinc 422
Graham, Dr. his account of the effects of deadly night-ſhade externally applied 419
Gregory, John, anecdotes concerning him 210
————— elements of the practice of phyſic 115

H

Hall, Iſaac, his account of an uncommon tumour on the thigh 89
Haller, Albertus, bibliotheca medicinae 84
Hanly, P. his account of a ſteatomatous tumour 191

Hanging, experiments concerning it 37
Hannes, Chriſtianus, on convulſions 245
Hart, James, on the flowers of zinc 76
Head, diſorders of it from external violence 130
Heart, obſervations on its action 287
Heat of animals, obſervations concerning it 60
—— its effects upon barometers 382
Heights, methods of meaſuring them by means of barometers 380
Hemlock, its inutility in cancers 128
———— its effects in kinkcough 387
———— obſervations on its preparations 394
Henry, Thomas, experiments on magneſia, &c. 277
Hernia, incarcerated, cured by the operation 413
Hewſon, William, his account of the uſe of the ſpleen, thymus, and lymphatic glands 99
Hill, James, caſes in ſurgery 126
Hulme, Nathaniel, on the puerperal fever 1
——— ———— his doctrine of puerperal fever examined 147
Hunter, John, obſervations on the exfoliation of bones 424
Hunter, William, remarks on a foetus in the Fallopian tube 429
Hydrops pectoris, obſervations on the diagnoſtics of it 248
Hydrothorax, a caſe of it, with the appearances upon diſſection 208

I

Infant, new born, breathes with the right lung before it does ſo with the left 411
Inſects giving root to plants, account of them 405
Intercoſtal iſſues, their uſe in complaints of the thorax 346
Itch, an epidemical one, cured by diureſis 259
—— cured by vitriolic acid 103

K

Ker, James, his account of the preparation of terra Japonica 326
Kinkcough, hiſtory and cure of it 387

L

Labours, natural, directions for the management of them 143
Leake, John, obſervations on the child-bed fever 227
Lindhoult, J. on the effects of electricity in the cure of diſeaſes 370
Linkius, Chriſtianus, on an epidemical itch 259
Locked jaw from a nerve being pricked by a falſe tooth 318
Lymph returns into the blood by the veins 46
Lymphatics, experiments on 45

M

M'Lurg, James, his experiments on human bile 150
Macquer, Mr, his method of diſſolving the caoutchouc reſin 293
Maclagan, Robert, his account of a recovery after the loſs of part of the ſubſtance of the brain 97
Magneſia, preparation of it 278
——— its medical properties 281
——— changes produced on it by calcination 282
——— calcined, experiments for aſcertaining its ſolvent powers 284
Malignity, methods of counteracting it 26
Mancheſter, accurate enumeration of the people there 431
Manget, Dr. caſes on different ſubjects 317
Marine acid, its effects on the bile 64
Matlock waters, obſervations on them 271
Meckel, Frederick, experiments on the lymphatics 45
Membrana decidua, found in the uterus, when there was no foetus there 429
Menghini, Vincent, obſervations on the influence of water as diſſolving human calculi 165
Miliary fever deſcribed 138
——— cure of 146
——— method of preventing it 144
Milk, obſervations concerning it 161
——— return into the blood by the veins 47
——— its analogy to bile 154
——— fever, cure of it 141

N

Neck, the third vertebra of it fractured by a fall 216
Night-ſhade deadly, its uſe in diſcuſſing a tumour at the anus 419
Nitrous acid, its effects on the bile 65

O

Oculi cancrorum, uſed in the cure of fluor albus 325
Odhelius, J. obſervations on the effects of broom-aſhes in dropſy 373
——— on the uſe of ſtramonium 368
Opiates, their effects in internal haemorrhages 238
Opium, taken in amazing quantities for the cure of tetanus 72
Orchis root, its culture and uſe 268
Os brachii, method of reducing it when diſlocated 351

P

Pain from cauſtics, means of abating it 428
Parr, Bartholemew, on warm bathing 297
Paſſions, their influence on the biliary ſecretion explained 158
Percival, Thomas, experimental eſſays 264
——— obſervations on the effects of fixed air in putrid fevers 306
Peruvian bark, obſervations concerning it 172
——— its uſe in ſcarlet fever 29

Peruvian

Peruvian bark, its uſe in puerperal fever 235
Phlogiſton of the bile, its effect on acids 151
Pills, operating by ſtool and urine in the cure of leucophlegmatia 30
Plague, obſervations on it 31
Plancus Janus, his obſervations on urine with a peculiar ſediment 168
Plants, examination of the queſtion concerning the generation of new ſpecies 398
Portal, obſervations on the action of the lungs on the aorta 409
Practice of phyſic, elements of it 215
Pregnancy, method of preventing diſorders peculiarly incident to it 142
Puerperal fever, eſſay on it 1
——————— account of it 135
——————— method of cure 145
Putrid fever, advantages of fixed air injected into the inteſtines 306
Putrefaction, experiments on it 194

Q

Quick-lime, its ſolvent powers in different quantities 285

R

Rickets, obſervations concerning them 178
Rueff, Joannes, on the hydrops pectoris 248
Ruſh, Benjamin, his account of the effects of ſtramonium 74

Ruſh, Benjamin, his account of the efficacy of a ſyrup, prepared from the tops of the cabbage-tree, in the cure of worms 328

S

Salep, method of preparing it 268
—— its uſe in diet and medicine 269
Sarco hydrocele, hiſtories of 251
Scarlet fever, obſervations concerning it 29
Schele Mr, his analyſis of cream of tartar 320
Sea ſalt, cauſe why it promotes putrefaction 274
Semen, abſorption of it, from the veſiculae ſeminales 49
Sibbens, account of 133
Simſon, Thomas, account of bile diſcharged from the lungs 94
Sloughing, account of it 428
Small-pox, means of preventing malignity in them 26
Small-pox, their progreſs ſtopt by meaſles 317
Spallanzani, obſervations on the action of the heart 287
Spleen, its uſe 101
Steatomatous tumour, an extraordinary one deſcribed 191
Stolle, Georgius, on the ſarco-hydrocele 251
Stone in the bladder, methods of removing it by operation, both in men and women 360
Strack, Carolus, on the colica pictonum 339
Stramonium, effects from the ſeeds of it 74
Synovial glands, method of treating contuſions of 355

T

Tacconius Cajetanus, obſervations concerning the rickets 178
Terra Japonica, obtained from a ſpecies of the mimoſa 326
Tetanus cured by opium 72
Thermometers, obſervations on 384
Tubes employed as barometers, the effects of their different diameters 378
Tumours diſcuſſed by the external application of belladona 419
——— obſervations concerning them 349
——— an uncommon one on the thigh ſucceſsfully extirpated 89
Thymus, its uſe 99

U

Urine depoſiting a blue ſediment 169
Urine ſuppreſſed from a compreſſion of the neck of the bladder 818
Uterus enlarged from a foetus in the Fallopian tube 429

V

Vitriolic acid, its uſe in the cure of the itch 103

W

Warm bathing, obſervations on it 297
Waters, their influence in diſſolving human calculi 165

White, Charles, on the diſeaſes of pregnant women 135
White, Mr, his ſolvent for biliary calculi 276
Worms cured by a ſyrup prepared from the cabbage-tree 329

Z

Zinc flowers of, their uſe in medicine 79
———— uſed with advantage in epilepſy 204
———— their effects in a caſe of hyſteria 422

ERRORS.

We are ſorry to learn, by a letter from Mr Hewſon of London, that his opinion concerning the uſe of the ſpleen is not properly repreſented in our Commentaries, pag. 99. et ſeq. But it is with pleaſure we can inform our readers, that he hopes ſoon to publiſh an account of it himſelf.

Pag. 151. l. 5. *For* metallic ſubſtances, *read* metallic ſolutions

THE END OF THE FIRST VOLUME.